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Architectural Draughtsmen

VI. JOHN RUSKIN

PRIMARILY, John Ruskin was not an artist at all. He was a most inspired worshiper of nature, God's handiwork, as he would have said, a prophet, an author, a social reformer, an art critic, a geologist, a draughtsman, and an excellent judge of wine.

The charm of his personality told equally on Charles Eliot Norton and on sacristans of churches in remote Italian villages, who treasured his sayings and to whom he wrote letters, as carefully composed as if written for the "Times." Meanness was absent from his character, and his charity covered a multitude of other people's sins. He was a prophet with a wonderful sense of rhythm, and his eloquence drew crowds to his lectures,—crowds that neither believed half he told them, nor much cared for his beliefs. His collected writings fill nearly forty large volumes, deal with every aspect of life, and are filled with passages which for sheer splendor are not to be outmatched in English literature. Mazzini thought Ruskin's mind the most analytical in Europe; but it was like a gem with a thousands facets,—when one flashed the others went out, and his works are filled with self-contradictions, with errors of fact, false principles of art, and bad political economy. He financed "advanced movements," helped Miss Octavia Hill in her housing of the poor, founded schools, and, boldly preaching that the true success of an industry was to be judged by its effect on the workman, anticipated modern socialistic teachings. As an art critic he preached a spiritual revival of art which had its religious parallel in the "Oxford movement." He forced the public to take art seriously; he invented a moral soil for it to grow in, and created an atmosphere through which it was seen in new proportions, glorified and enlarged. He made Turner famous, and incidentally made the fortunes of those who had bought Turner's works. Yet seen through the pages of "The Gentle Art of Making Enemies," he appears as a sort of impostor who, having hopelessly confused art and morals, succeeded in imposing his judgments on an unenlightened public by his ability to write sonorous English. He drew with the fine sense of the true craftsman for the qualities of the medium; but drew to learn, and used his drawings to point a moral and adorn his tales. Lastly, he felt that his failure to devote himself to geology was a real loss to that science.

This strange, crotchety saint, who combined some of the reverence of Words-

worth, the sensitiveness of Shelley, and the accuracy of Turner, was born in 1819. He was an only child and his youth, and indeed much of his early manhood, was spent in the constant companionship of his parents, both of whom influenced his career to a quite exceptional degree. His mother was a pious evangelical, a prude, much concerned with moral philosophy, but a perfect housekeeper, in fact, like Martha, careful and troubled about many things. To her insistence on Bible readings Ruskin owed much of his sense of style, and to her exacting demands in the matter of accent and rhythm, the cultivation of his ear. A well that he endowed to his mother's memory bears an inscription which is worth quoting, because it gives so much of the spirit of the man and is also an example of his English, which came from sources as pure as the well. It runs as follows: "In obedience to the Giver of Life, of the brooks and fruits that feed it, of the peace that ends it, may this well be kept sacred for the service of men, flocks, and flowers, and be by kindness called Margaret's Well."

To his father, who was a wine merchant, Ruskin owed his fortune, his introduction early in life to art, and the romantic vein in his nature. The elder Ruskin was a type of merchant as complete as, apparently, extinct. He had the soundest of business instincts, unimpeachable honesty, and a palate fine enough to test and pass judgment on the sherries that he sold and which were, by the way, the best in the world. To these qualities which insured his worldly success were added a taste for pictures, a love of Scott and Byron, and a great delight in romantic scenery. It was during his father's leisurely posting tours to sell wine and see pictures that Ruskin made his first acquaintanceship with lovely scenery and the Old Masters.

At the tender age of ten Ruskin began to draw, copying maps in an atlas, and at twelve he was given a drawing master, a Mr. Runciman, who taught him perspective but failed to cultivate the boy's already remarkable delicacy of pen line. In the same year his father subscribed to a volume of Prout's published sketches of Flanders and Germany, and Ruskin became familiar with an artist for whom he was always to care and by whom he was much influenced. This volume of sketches so delighted the Ruskins, father and son, that Mrs. Ruskin suggested that they might see the places in reality, and so it came about that in 1833 the future author of "Modern Painters," had his first view of Switzerland and Italy. It was a time of passionate happiness for the sensitive boy, and the excitement of those three months strained his "poor little faculties" to the utmost. He made many small sketches in pen and India ink, and the following winter set himself to write a poetical account of the tour, illustrated with drawings in imitation of the engravings in Rogers' "Italy." This book had been given to him by Mr. Telford, his father's partner, and the engravings were from drawings by Turner. Ruskin had never heard of Turner, but the effect of these reproductions was so great that the main tenor of his life was determined.

In 1834 Ruskin was hard at work studying geology, architecture, writing verses, and drawing. That he had some appreciation of the merits of his own work is evidenced by a comment on this year's drawings in which he says, "there was really the making of a fine landscape or figure outline engraver in me." An illness in 1835 was followed by another trip to the continent, which really began at Abbeville, where he had his first taste of French Gothic and French provincial life, in the little, then unspoilt, town, the market place of which he was later so beautifully to draw.

The next artist to directly, though slightly, influence Ruskin, was Copley Fielding, then president of the Old Water-

THE DUCAL PALACE—VENICE
From the original drawing by John Ruskin

Color Society. The elder Ruskin had bought one of Fielding's paintings, and the delight of father and son in his work led first to their making his acquaintance and later to his giving water-color lessons to Ruskin. The boy soon learned the somewhat academic method of his master, but as quickly discovered that Fielding's processes were of little use in portraying the Alps and, more important still, he realized that his own gifts did not lie in the direction of color composition, so he returned to his line work. This was derived from Prout, and was characterized by a sharp line ending in a dot, and this Proutesque style became more and more mannered until, in 1840, he abandoned it and tried a method learned from David Roberts. One of the drawings here reproduced belongs to this period, and Prout actually borrowed it and copied it. The original was done in pencil, wash, and body color, and represents the Casa Contarini Fasan at Venice. Certainly of its kind it is nearly perfect, and as wonderful as a bit of Venetian lace in the intricacy and delicacy of its detail, which unfortunately becomes quite impossibly fine in the reproduction. The line sometimes breaks for the sake of breaking, and has a kind of self-conscious tremble like an assumed stutter, to add to the effect of a good story. It is interesting to note the natural drawing of the dark boat on the left which balances the stately procession of the palaces.

Before 1836 Ruskin had never seen a Turner drawing, and the pictures he had seen appear not to have made much impression on him, but in that year Turner exhibited three paintings which were attacked in a hostile review published in "Blackwood's Magazine." This article raised Ruskin to the pitch of "black anger," and he wrote a defence, or rather a scathing rejoinder, which was sent to Turner for his approval before being published, but the old painter only replied that he did not notice such attacks and sent the manuscript to the purchaser of one of the three pictures. Thus was written what was virtually the first chapter of "Modern Painters," and thus began Ruskin's acquaintanceship with the man whose name was to be forever linked with his.

David Roberts, to whom I have already alluded as the artist whose method Ruskin copied after 1840, was a Royal Academician, a "kind of gray mirror," "destitute of imagination" and "incapable of color." He had been to Egypt and Syria, and had brought back many drawings which, as records, were invaluable before the days of the photograph. His method, which differed in no essentials from that employed by the early Italians, consisted in the use of a cool gray paper for his drawing, the shadows being indicated with a flat wash and the lights with a warm white. Of some drawings made in this way, in 1841, Ruskin says, "I can say now forty years later, with certitude, that they could not have been much better done. I knew absolutely nothing of architecture proper, had never drawn a section nor a leaf moulding, but liked, as Turner did, to the end of his days, anything that was graceful and rich, whether Gothic or Renaissance; was entirely certain and delicate in pencil touch and drawn with an acuteness of delight in the thing as it actually stood, which makes the sketch living and like, from corner to corner. This much I could do, and did do, for the last time. Next year I began trying to do what I could not, and have gone on ever since, spending half of my days in that manner."

Meanwhile Ruskin, in 1836, had gone to Oxford, and was entered as a gentleman commoner at Christ Church, then, as now, the most aristocratic of English colleges. He was graduated in 1842, and of his stay in the University it need only be said here that his success in pure scholarship was small, his studies, as might be expected, diffusive, and his friends distinguished. But the year he left Oxford

SOUTHERN PORCH OF ST. WULFRAN—ABBEVILLE
From the original drawing by John Ruskin

he made, for him, a very important discovery. Noticing one a day a bit of ivy about a thorn stem, he made a careful pencil study of it, and of this he says, "When it was done I saw that I had virtually lost all my time since I was twelve years old because no one had ever told me to draw what was really there." After this he never *imitated* anybody, but he came more and more under the influence of Turner, who in 1843 painted for him the Goldau and the Dazio Grande.

In 1844 Ruskin returned to Chamouni, and worked in, what he calls, "entirely right and profitable ways." This meant more and more careful work from nature, a "resolute determination to have ever so small a bit of my work right, rather than any quantity wrong,"—right, in Ruskin's mind, meaning true, not to some artistic impression, but true to what was really there, before his eyes. As an interesting indication of Ruskin's feelings about his work of this period we may quote a passage in which he says, referring to a famous Swiss guide, Joseph Couttet, "For thirty years he remained my tutor and companion. Had he been my drawing master it would have been better for me." In the winter of this year, on his return to England, he studied and copied Turner's "*Liber Studiorum*" so that he got a good control of sepia washes.

From this time on Ruskin was almost yearly on the Continent, and in 1845, before the monument to Ilaria di Caretto, by Jacopo della Quercia, he vowed that not all his time should be devoted to the study of rocks and clouds. On this trip he was accompanied by the guide Couttet, already referred to, and a servant of his father, named George. Ruskin, fresh from his studies of Turner, was interested in comparing the master's compositions with the actual places which had inspired them, and one day pointed out to George how Turner had adapted nature to his needs. George's criticism of the great painter's composition, which often has been made since but in less amusing terms, was: "Well, he is a cunning old gentleman, to be sure, just like Mrs. Todgers, dodging among the tender pieces with a fork."

Ruskin's first real contact with early Italian painting was on this year's pilgrimage, and the naturally religious temper of his mind was much enhanced by contact with the works of Orcagna and Angelico. How close the connection was, in him, between the esthetic and the religious impulses may be seen from a passage in which he says, "Further than this, all my love of the beauty, or sense of the majesty, of natural things was in direct ratio to conditions of devotional feeling."

By the autumn he had arrived at Venice, and the sight of the Tintoretto paintings in the Scoula di San Rocco, overwhelmed him as the Alps had done in younger days. "Modern Painters," which had been begun as a defence of Turner, now became a hymn in praise of Old Masters and most of the drawings Ruskin made at this time, and for years after, were fagots for the fire he kindled with that book.

There is a drawing of this period, here reproduced, which clearly shows the change that had come over Ruskin's method. It represents a portion of the Ducal Palace at Venice, and though far less of a picture than the drawing of the Casa Contarini, it is a far more serious affair. We hardly need to be told that it was "sketched by measurement" and we feel the determination to get the "small bit" quite "right." So intent was Ruskin on the architecture that the value of the sky is all wrong, looking as somber as the twilight of a winter day, while the gondolas, the most insistent note of romance in Venice, are most summarily suggested.

During the years 1846 and 1847 Ruskin made, usually in pen and sepia washes, many careful studies from nature, largely of tree forms and rock structure, but in

THE TOMB OF MASTINO—VERONA
From the study by John Ruskin

1848 he returned to Abbeville and architecture, and we have reproduced a drawing of the Southern Porch of the Church of St. Wulfran, made in that year. It was one of many drawings used to illustrate a lecture on "The Flamboyant Architecture of the Valley of the Somme," given by Ruskin at the Royal Institution in 1869. Like most of the countless drawings and sketches which he made, this one is unfinished; and like most of the careful studies, it was made in order to learn certain facts. Ruskin was forever finding out and then straightway holding forth, using the study, from which usually he had found out many things, to illustrate the theory, about which he held forth at great length. So in this case, our drawing illustrates one of the seven lamps of architecture. It is freer than the Ducal Palace, but with the same overmastering intention, and would seem to be sufficiently successful, yet Ruskin wrote of it, "I seem born to conceive what I cannot execute, recommend what I cannot obtain, and mourn over what I cannot save."

These and the following years were full of crucial events in Ruskin's life. The second volume of "Modern Painters" appeared, bringing fame to the author and not a few enemies. Meanwhile the family had moved into a larger house at Denmark Hill, where there were soon a wonderful and growing collection of Turner's works and delightful dinners with artist friends. Then came one of those unfortunate love episodes in Ruskin's life, unfortunate because they led to nothing except a temporary decline in his health. This time his admiration was Lockhart's daughter, and Ruskin's manner of making love to her was, characteristically, to write a review in the "Quarterly." In the end Lockhart cut the best passages of the article, and Ruskin had his last sight of the girl at a dinner where he seems to have wasted his time disputing with Gladstone, who sat on the other side of Miss Lockhart. Another shock was the slowly dawning recognition of the errors and limitations of the religious beliefs he had been taught. He began to see that the success of religion was in the vividness of its faith and not in the terms of its doctrines. Lastly his marriage to Effie Chalmers Gray, which was *not* a love affair and being, in truth, no marriage at all, was a few years afterward annulled.

Before this took place Ruskin and his wife went to Venice, where many drawings and notes were made for the "Stones of Venice" and so on to Verona, which represented to him the "fate and beauty" of Italy. Two drawings made there in 1852 are here reproduced. One is a finished drawing, the other a study of general chiaroscuro, both of the tomb of Mastino. The latter was shown at a lecture given at the Royal Institution in 1870, on "Verona and its Rivers," to illustrate what Ruskin called "the peace in manner of contemplating death, and correlative perfectness in Gothic style." The drawing, although sketchy, is not in the least careless, and in spite of the looseness of texture and hasty line is full of sharp accents in vital places. The emotion and passion of the three figures, sculptured in relief on the end of the sarcophagus, are wonderfully conveyed with the utmost simplicity of method.

The more finished drawing of the tomb of Mastino is no more finicky than the other is careless. It is always saved from over-refinement by a simplifying process, and from any mere smartness of facility by the reverence of the man toward his subject. In fact the most precious qualities in these drawings are explained by the following extract from a letter written by Ruskin to his father: "I don't think myself a great genius, but I believe I have genius, something different from mere cleverness, for I am *not* clever in the sense that millions of people are . . . But there is in me the strong instinct which I cannot analyze

THE TOMB OF MASTINO—VERONA
From the original drawing by John Ruskin

to draw and describe the things I love,—not for reputation, nor for the good of others, nor for my own advantage, but a sort of instinct like that for eating and drinking. I should like to draw all St. Marks, and all this Verona, stone by stone, to eat it all up with my mind, touch by touch." Again the reader must be warned that much of the beauty of all these drawings could not survive the double ordeal of photographic reduction and process reproduction.

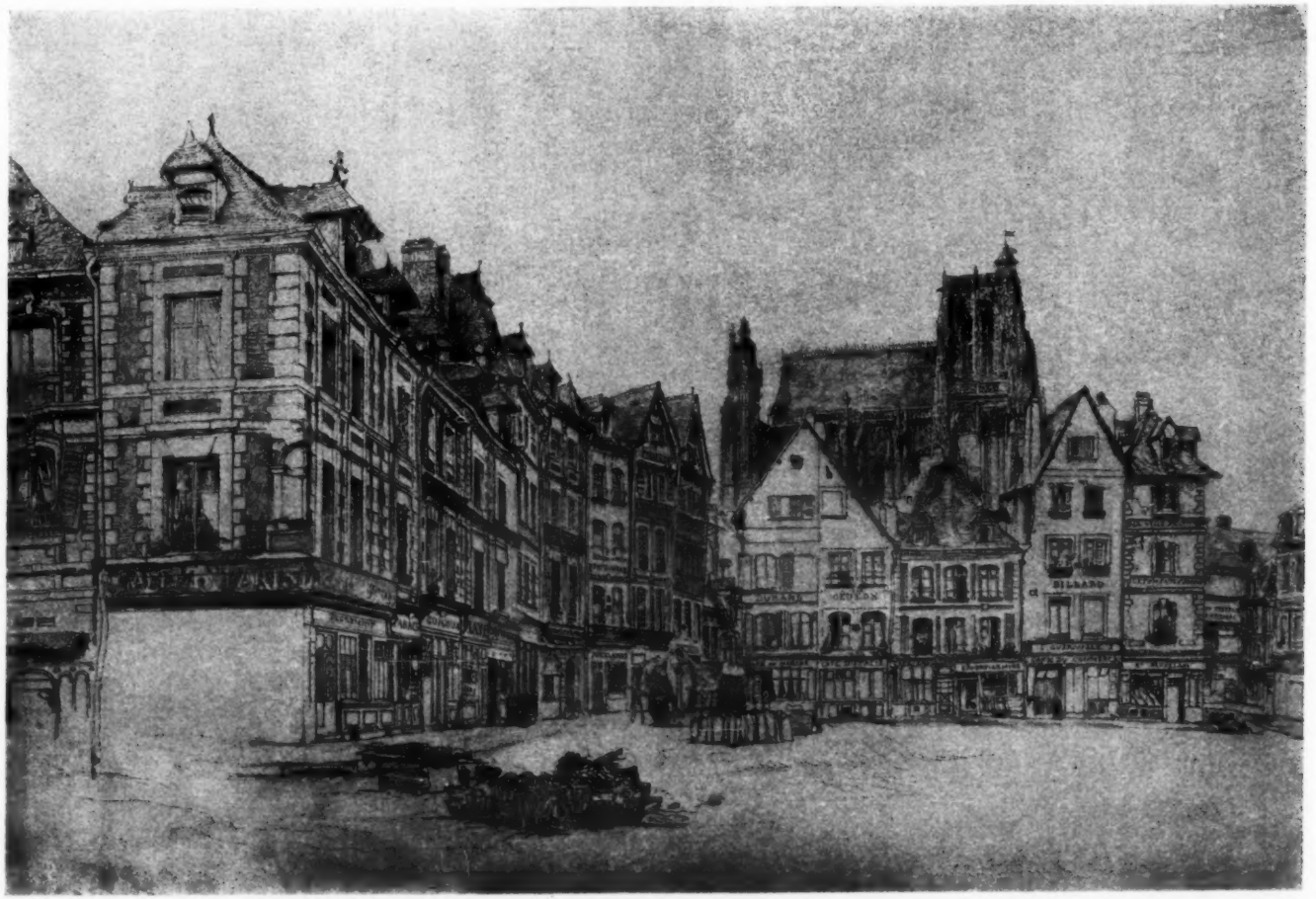
One of Ruskin's many plans that were never carried to completion was an illustrated work on Swiss towns, and he was in Switzerland in 1854, 1856, 1858, and 1861, making drawings and notes. But the task did not prosper. Old buildings were torn down before he could draw them, and new ones were erected just where they spoilt the composition. In dismay and anger he saw the country which was most dear to him, his genius having a strong affinity with mountains, being day by day defiled with the by-products of modern travel. In a letter of 1856—when he was thirty-seven!—he complains that he is getting old, and that he will have only 11,780 days left for work if he be spared until seventy. Meanwhile, when at home in England, he drew from the figure, sometimes in Burne-Jones' studio.

In 1868 he was again in Abbeville, and a charming drawing of the market place, done in that year, is here reproduced. Considering the wealth of detail it is small wonder that he drew on it for more than a month. The present writer, who has attempted to draw that market-place, which is, or was before the war, much as Ruskin saw it, can testify to the quite touching fidelity of its delineation. Ruskin himself said of the work he did at Abbeville on this occasion, "It isn't Turner and it isn't even Prout, but it isn't bad." and we may be permitted to agree that it is not Turner but much finer than Prout. It is pleasant for Americans to note that he took the time to go to Paris and dine at Meurice's with Norton and Longfellow.

In the spring of 1869 Ruskin was again in Verona, it being a principle with him to return again and again to the places he loved, and among the many drawings made there we have reproduced one of the Piazza dei Signori, in pencil and slight body color. Compare this with the drawing of the Casa Contarini, and it will be seen how far he had progressed since his Proutesque days. There is more exactness and still more fidelity, but a great freedom and an almost ethereal lightness of touch. Nothing is slighted, one can even read the poster on the wall, announcing the production of Hugo's "*L'Homme qui rit*," but what ease of manner and tenderness of execution, and how suggestive, from the cross on the top of the tower to the crowd under the archway. Here he again met Longfellow, who chanced upon him as he drew in the square, in the lovely Italian sunlight of early morning.

In 1874 Ruskin was once more in Italy, this time in Lucca. Indeed it might be thought that he spent all his time in travel on the continent, if there were not the record of his other life, lecturing, contesting an election with Disraeli, furthering a hundred charitable and socialistic undertakings and founding schools. Our last drawing is of the church of San Martino at Lucca, and Ruskin thought it one of his best. It is more of an achievement than the other drawings because of the violence of the perspective and the mass of foreshortened detail, also because of the rendering of the local color of marble and mosaics. Ruskin has succeeded in this by keeping the cast shadows delicate and luminous, which gives the full value to the black marble.

There is little to add to these examples of Ruskin's methods of work. He drew until his hand was shaky and his eyes dim, using a modification of Turner's method till the end. But long before this came,



THE MARKET PLACE—ABBEVILLE
From the original drawing by John Ruskin

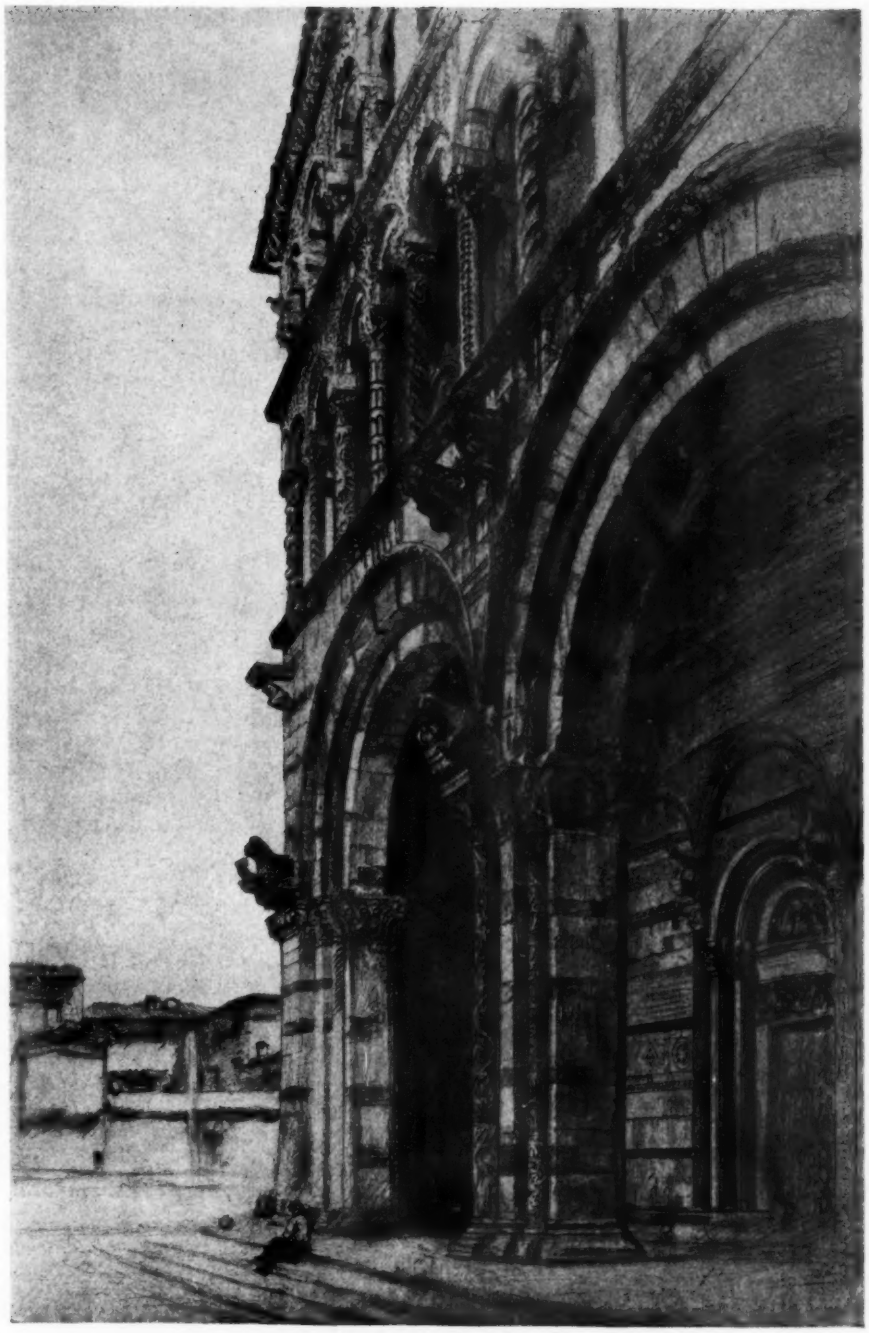
in the first days of the present century, he had virtually ended his art work. His marriage had been a failure, his health became poor, his changing views affected unfortunately his relations with his father and mother, his father finding his ideas on political economy as heretical as his mother considered his religious doctrines unorthodox. Carlyle was at his elbow, ever urging him on to the expression of his "divine rage against falsity," and he began to turn away from the field of art. Ruskin had tried in his essays to "bring everything to a root in human passion or human hope," and now he turned wholly to the study of those human passions and hopes which find expression in labor strikes rather than in art.

Ruskin wrote like a god, but he drew in the spirit of a worshiper. His power of invention was small, his sense of composition not great, but his power of observation was prodigious and his sensitiveness to beauty very keen. Also he had a knowledge and feeling for architecture, which, combined with his artistic power, made his architectural drawings unique. Also, and this is important, it must be remembered that underlying the many manifestations of Ruskin's energy was a persistent spiritual impulse. He held that art was man's appropriate means of glorifying God's handiwork. He divided the world of artists into sheep and goats, and the goats practised art for its own sake. This central theory of Ruskin is clearly stated in "The Two Paths," where he says, "Wherever art is practised for its own sake, and the delight of the workman is in what he *does* and *produces*, instead of in what he *interprets* or *exhibits*,—there art has an influence of the most fatal kind on brain and heart, and it issues, if long so pursued, in the *destruction both of intellectual power* and *moral principle;* whereas art, devoted humbly and self-forgetfully to the clear statement and facts of the universe, is always helpful and beneficial to mankind, full of comfort, strength, and salvation."

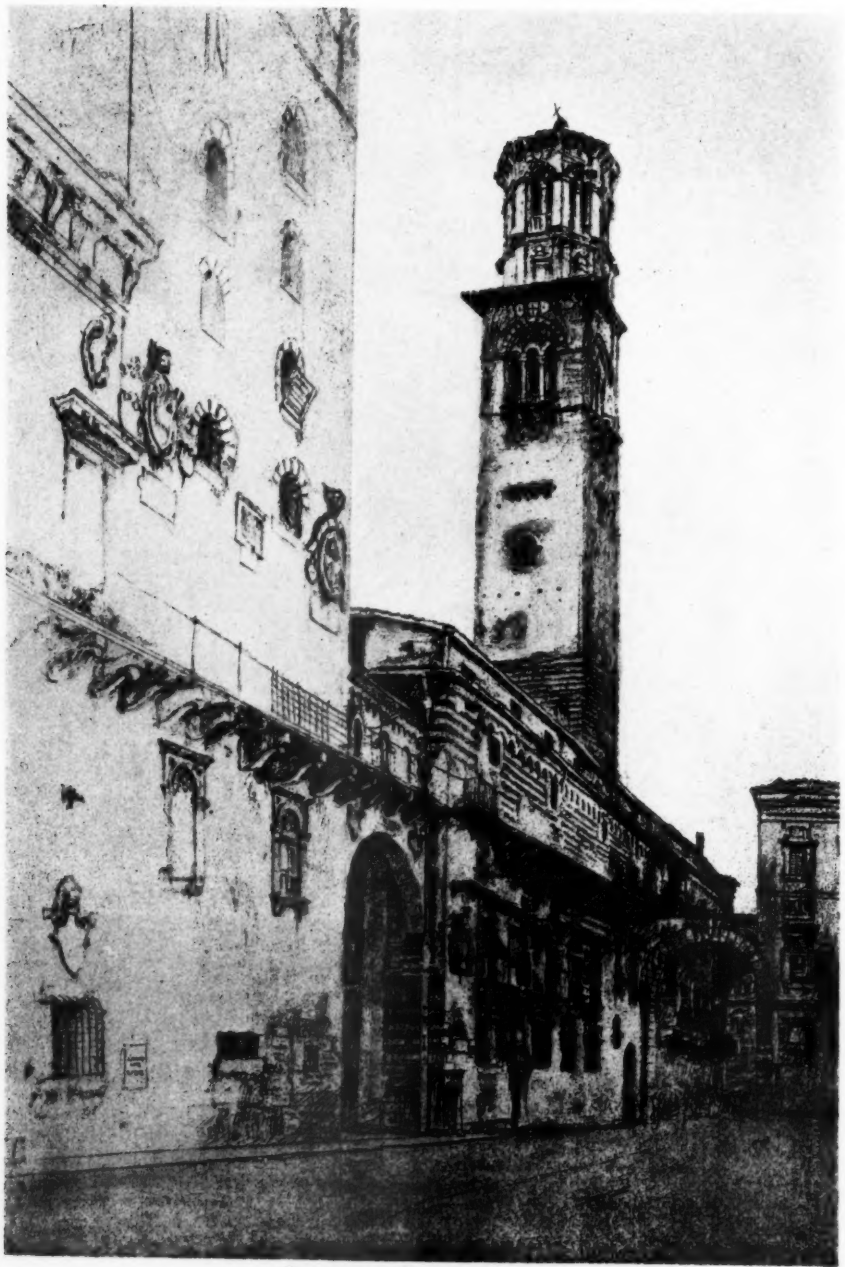
This attitude, or rather this moralistic obsession, had its natural effect, as well on his drawing as on his writing, and it was the development of this, always dominative, side of his character which led him away from the field of art into the less flowery field of socialism. Incidentally it was the cause of his falling foul of Whistler. The world has now almost forgotten that famous trial, how Whistler won his farthing damages and how, with more wit than kindness, he held up to ridicule, on the point of his spiteful pen, the mistakes and critical shortcomings of his adversary. Now, putting side by side one of Whistler's exquisite arrangements of racy line, and one of Ruskin's delicately beautiful and piously faithful drawings, we may perceive the charm of both and the utter futility of that far-away trial. It is not the rules that count but the man behind the rules.

HENRY WINSLOW, London, 1915.

[NOTE:—The drawings here shown are in the Ruskin Drawing School at Oxford and, by the kind permission of the trustees, have been reproduced for this article by the Clarendon Press. It is perhaps of interest to know the scale on which Ruskin worked in making the various drawings here reproduced, and the dimensions of the drawings are therefore appended. Casa Contarini Fasan, 12¾ x 17½; Ducal Palace at Venice, 14 x 20; Porch of St. Wulfran, 12 x 18; Tomb of Mastino, sketch 13½ x 20; Tomb of Mastino, drawing 14 x 18; Market Place at Abbeville, 14 x 20; San Martino, Lucca, 13 x 20; Piazza dei Signori, Verona, 14 x 20½.—EDITOR.]



San Martino—Lucca
From the original drawing by John Ruskin



PIAZZA DEI SIGNORI—VERONA
From the original drawing by John Ruskin

Thomas Jefferson and the First Monument of the Classical Revival in America

By FISKE KIMBALL, Ph.D., M. Arch.
University of Michigan

II. The Original Design of the Capitol[1]

B. The Design as Proposed by the Directors.

With the letters of the Directors at hand, it is possible to recognize as their "inclosed draught" a drawing preserved in the Coolidge collection in Boston. (Fig. 1.) The remarks which accompany the plan have disappeared, but the plan itself bears manifest evidences of being a sketch intended to convey the requirements for the building projected. Its suggestive character appears in the lack of windows, and the note, "the windows to be plac'd as found most convenient in the Ellivation." The building shown is rectangular, having a relatively small portico placed against each of the sides, as appears by notes in the margin. It thus corresponds with Jefferson's statement, cited on page 380[2], that the building begun was to have four porticos. A central hall traverses the building in each of two stories, with rooms ranged on either side in rather accidental fashion, answering closely in number and relative importance to those named in Jefferson's description of his design.

C. Jefferson's Studies for the Design.

The Coolidge collection includes also a group of drawings, the general agreement of which with Jefferson's description, and with the Capitol as it stood until 1906, leaves no doubt that they have reference to the building. As variants one of another, still bearing suggestions for further modification, they are evidently preliminary studies, and the identity of paper and technique with earlier and later drawings of Jefferson's establishes with certainty that they were drawn by his own hand.

There are seven sheets in the group, four of plans on red-lined coördinate paper, three of elevations on paper with coördinate lines embossed without ink. The drawings themselves are executed with a finely pointed pencil, the elevations in line only, the walls in plan filled in with a solid pencil tone. Neither coördinate paper nor lead pencil was used in drawings made by Jefferson before his residence in France; on the other hand, both were his preferred media after his return.[1]

Of the red-lined sheets, three are engraved, with main division slightly less than the English inch, and divided into ten parts. The total shortage below English measure in the length of the plate, about twelve and a half inches, varies from three-sixteenths to three-eighths of an inch, which conforms to what might be expected from the shrinkage of the paper after impression. There is no water-mark or other indication of the origin of the paper except what may be furnished by its English sub-division. Many other drawings on this paper exist in the Coolidge collection, of which it will suffice to mention one as having no connection with Clérisseau—a plan of one of the pavilions for the University of Virginia, which must have been made as late as 1817. The fourth sheet with red lines was ruled by hand none too carefully. Of the embossed paper used for the three elevations, only

[1] Continued from the September Journal.
[2] Journal for September.

[1] Cf. the drawings reproduced and studied in the article on Monticello, already cited.

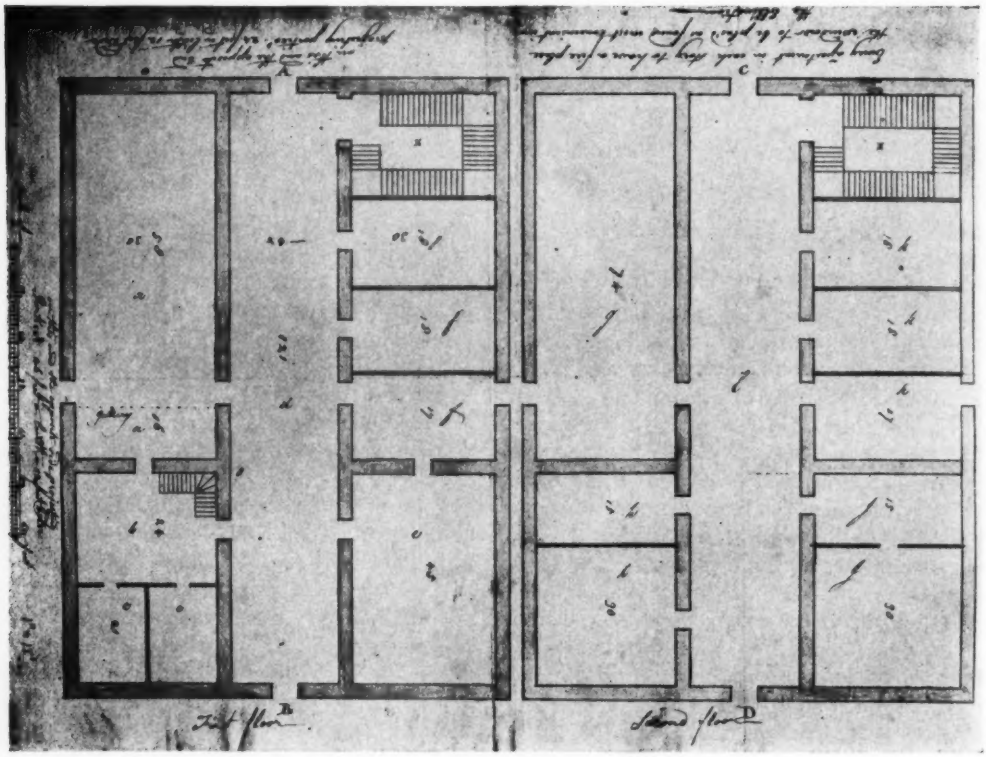


FIGURE 1

one other sheet exists among Jefferson's drawings, but it bears a drawing of which Jefferson's authorship can be in little doubt,—a plan for the grounds at Monticello, evidently preparatory to the remodeling of 1796, but bearing later notes, one of them dated May 23, 1808.

This coincidence of materials, of course, is not sufficient to establish Jefferson's authorship of the Capitol sketches. Their identity of technique with other drawings of Jefferson's, however, is equally striking. Self-taught as a draughtsman, and approaching architecture with geometric and formal preconceptions fostered by his allegiance to Palladio, Jefferson's manner was calculated, mechanical, and precise,—the very antithesis to the free and intuitive method of men of artistic training, like Clérisseau. The exactness and Palladian detail of the elevations of the Capitol repeat verbatim the language of corresponding drawings made by Jefferson before his European journey.[1]

Before studying the design as exhibited in these drawings it will be well to examine their possible sources on the formal side, the drawings of the Maison Carrée which were accessible to Jefferson. The building is figured in Book IV of Palladio's "Architecture," Jefferson's prime authority in previous years; it is shown with greater detail and exactness in Clérisseau's "Monuments de Nismes," which Jefferson mentions in his Memoir. We have seen that he purchased a copy from the author,

[1]Cf. especially the Ionic portico of the garden pavilion, bearing the date, April 23, 1779, reproduced in the article on Monticello, Fig. 18a.

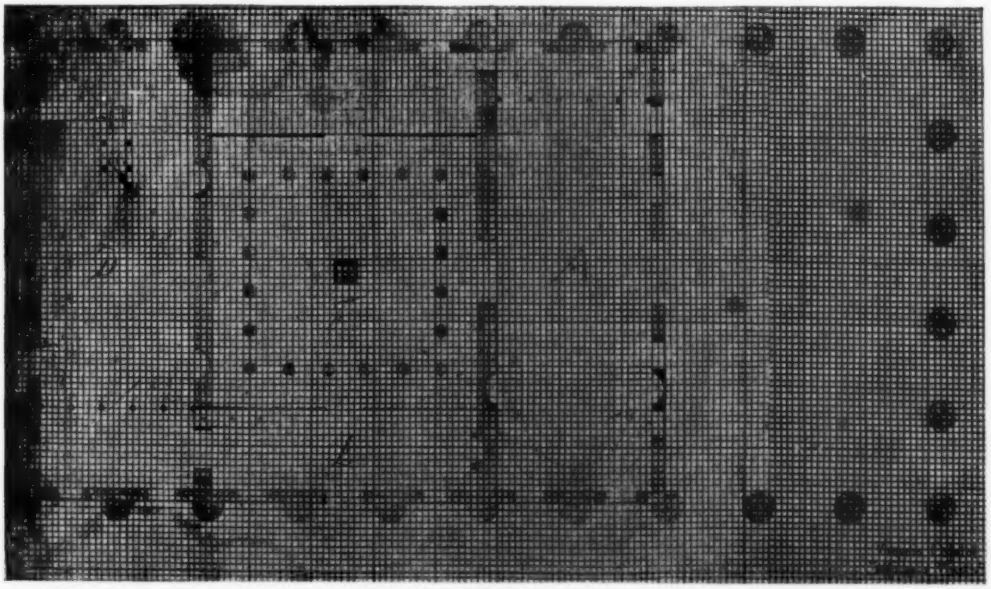


FIGURE 2

charging it to the state; an entry, whether for this copy or another, appears in the catalogue of his private library. Jefferson also acquired an additional copy of Palladio while in Paris,[1] but the dates of these purchases we do not know. In Palladio's engraving the dimensions of the building are rationalized to conform to the modular system which the author, following Vitruvius, everywhere introduces. The lower diameter of the column being taken as a module, the height of the column and entablature are given as ten modules and as two and a half modules respectively, the intercolumniation as one and a half modules, or "pycnostyle"—the close spacing of Vitruvius. In Clérisseau's plates, on the other hand, all the dimensions, even those apparently corresponding to each other, are given minutely in French feet and inches. Frequently differing in absolute size from the measures as stated by Palladio, they result in a somewhat different set of proportional ratios, less conveniently integral. Column and entablature, to be sure, are of nearly the same proportional height, but the space between the columns averages about one and three-fourths modules, instead of one and a half, a spacing justified by no classical theory. Since the number of columns and spaces are the same in each case, it follows that the total proportions of the length to the width vary substantially in the two representations.[1] It should therefore be relatively easy, provided Jefferson did, in fact, rigorously observe the proportions, to see which authority he followed, and ascertain which study in the series, from its closer relations with the prototype, seems to have been made first.

There can be no question that the first project was the plan reproduced in Fig. 2, and that it was derived from the engravings of Clérisseau's "Monuments de Nismes."

[1] The entries for the Clérisseau and for De Chambray's edition of Palladio occur in his MS Library catalogue (at the Massachusetts Historical Society) in the darker ink and finer hand which characterize the entries for his foreign purchases.

[1] For full details concerning these and other dimensions and proportions, see the table on page 434.

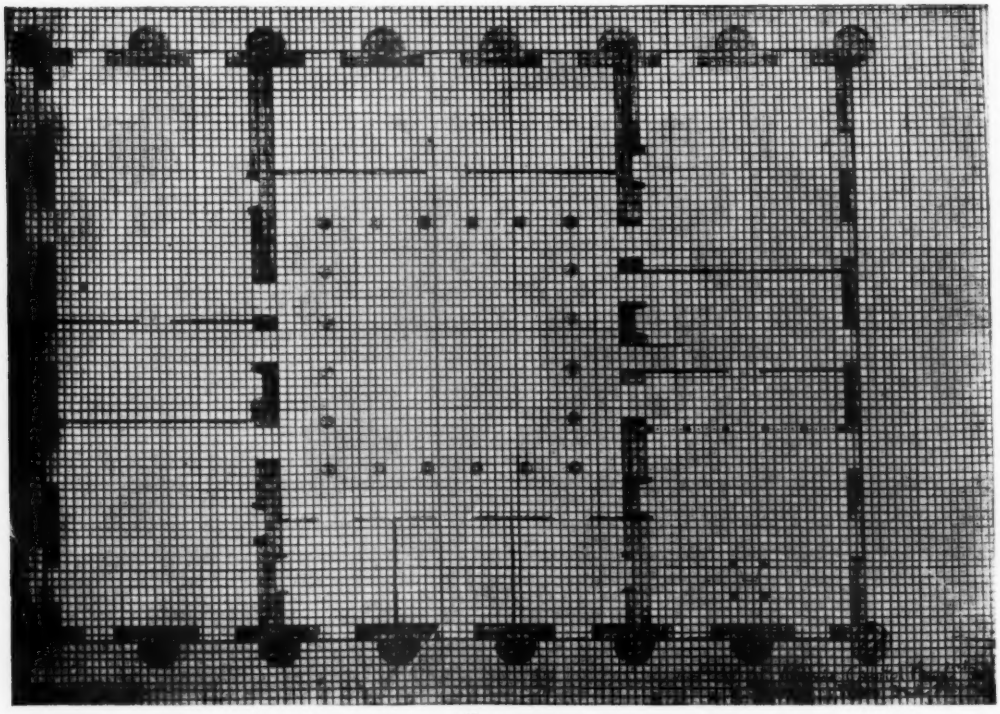


FIGURE 3

The spacing of the exterior ordonnance is, with a negligible percentage of error, exactly on the same proportions as in Clérisseau's plan (see Table, page 434). The scale, however, was much greater, the total length being 153 feet 9 inches, against about 85 English feet for the Maison Carrée; the module—the diameter of the column—5 feet 5 inches, against about 3 feet. Neither of these important dimensions is in round numbers, and it becomes a question what did determine the size. The answer would seem to be furnished by a striking coincidence between Jefferson's study and the Directors' sketch. If the depth of the porticos there stated be added to the scaled length of the main mass, the total length amounts to 153 feet 6 inches, identical with the total length of Jefferson's study. The exterior of Jefferson's first scheme, then, was determined by the proportions of the Maison Carrée as given by Clérisseau, and, very naturally, by the extreme dimension furnished by the Directors.

The interior disposition, in contrast with that shown by the Directors, is clear and largely handled, corresponding in general with Jefferson's description and with the building as executed. A monumental hall, square, running through two stories, and focusing on the pedestal for Washington's statue, occupies the center of the cella, between two principal rooms at the ends and the shallow rooms, one containing the stairs, at the sides. The precise relative sizes of these rooms was determined by the fenestration, two bays of the side going to each of the end rooms and three to the central hall. This gave a very large central space, permitting a peristyle of six columns each way, but

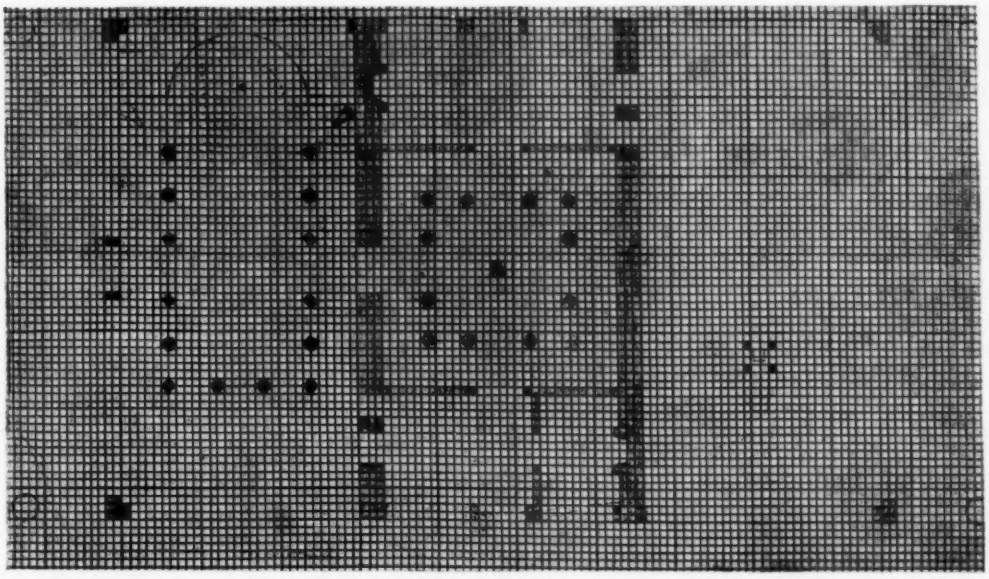


FIGURE 4

made the end rooms comparatively narrow, twenty-five feet by seventy. The cutting off of galleries supported on columns, and the further subdivision by railings, do not noticeably improve this disproportion. The second story (Fig. 3) has the same main divisions as the first, with a second order of columns in the central hall, and smaller rooms separated by light partitions over the long rooms at the ends. The various rooms in the first-floor plan were indicated by capital letters, referring to some legend not to be found. The distribution of these letters is identical with that on later plans, which will be found to permit a readier identification.

The two remaining plans (Figs. 4 and 5) show little or nothing outside the ashlar lines of the cella, and obviously embody attempts to improve the proportions of the individual rooms. Each divides the length of the cella into three equal parts, with the central hall square, and the length of the end rooms twice their breadth. Here the inspiration is evidently from a passage in Palladio, Book I, Chapter 21: "In the length of halls I use not to exceed two squares, made from the breadth; but the nearer they come to a square, the more convenient and commendable they will be." Among "the most beautiful and proportionable manner of rooms" Palladio names those which are square or of two squares. The difficulty of these schemes in which the interior was determined first was that of afterwards fitting the exterior order to it. With neither of the schemes in hand is it possible to place either columns or pilasters along its sides, no matter what their proportions, and have five spaces on the end and seven on the side, all equal, as in the original. Even had the spacing been different on the end and on the side, the new proportions of the interior would not have permitted a symmetrical position of the windows in the end rooms. These difficulties might have been overcome by the omission of the exterior order along the sides, as in the studies for the elevations, and may well have given the first suggestion for the omission, though the possibilities of free-

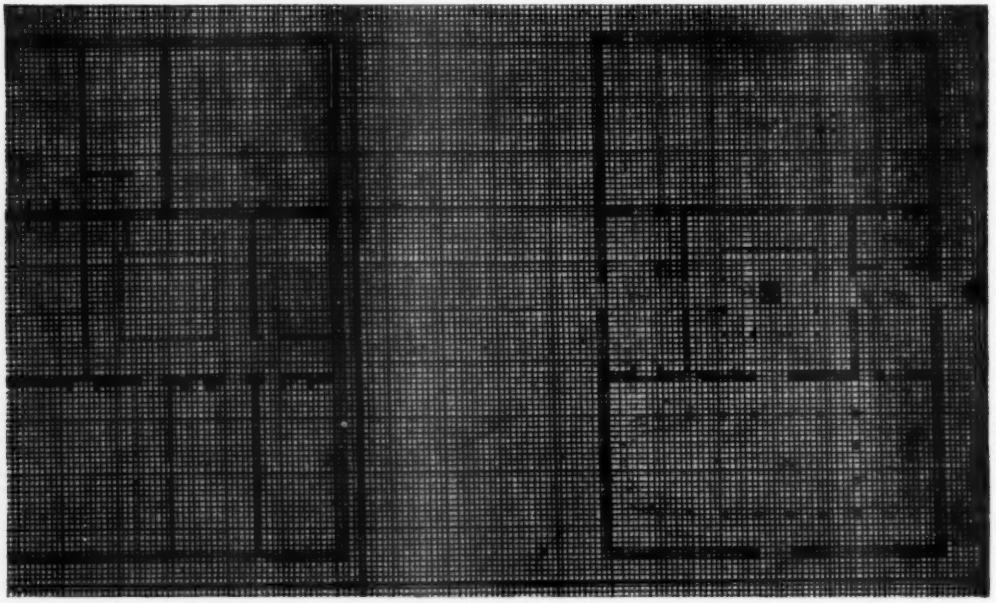


FIGURE 5

dom thereby secured were utlimately left unutilized.

The interior arrangement of the first story is substantially identical in the two studies, the second story is shown only in the one on hand-ruled paper (Fig. 5). The reduced central hall has now four columns on a side in the first story, and none in the second, a simple railing being substituted there. In one of the end rooms, however, the greater width secured is used to elaborate the subdivision, a basilican arrangement of columns being introduced, leading up to the railed exedra at the end. The stairs are moved into the aisle of the central hall, but otherwise the arrangement, both upstairs and down, follows the general lines of the first study. The basilican colonnade, just mentioned, now gives us the clue to the arrangement of the rooms mentioned in Jefferson's lists, for it can denote nothing else but the court-room, for which Palladio himself recommends and illustrates a form on the antique model (Book III, Plate XVII). The same holds for the room with the corresponding letter A in the first study. D must then be the House of Delegates; F, the central hall, must be the Conference Room; E, the House Lobby; B, the vestibule to the court-room; and C, the office for its clerk. Upstairs, the Senate Room is certainly the large room with a gallery, situated over one end of the court-room. All this corresponds perfectly with the indications given by Jefferson in his formal description of the design, and in his letter of January 26, 1786.

The principal difference between the two studies under discussion, and a very notable one, lies in the intended relation of the columns to the cella. On the one shown in Fig. 4, instead of the single deep portico, a portico at each end, only one bay deep, is suggested,—a radical departure from the prototype, whether made in the interest of formal symmetry or of expression of the balance of legislative and judicial functions in the interior. The external walls of the cella are left incomplete to permit

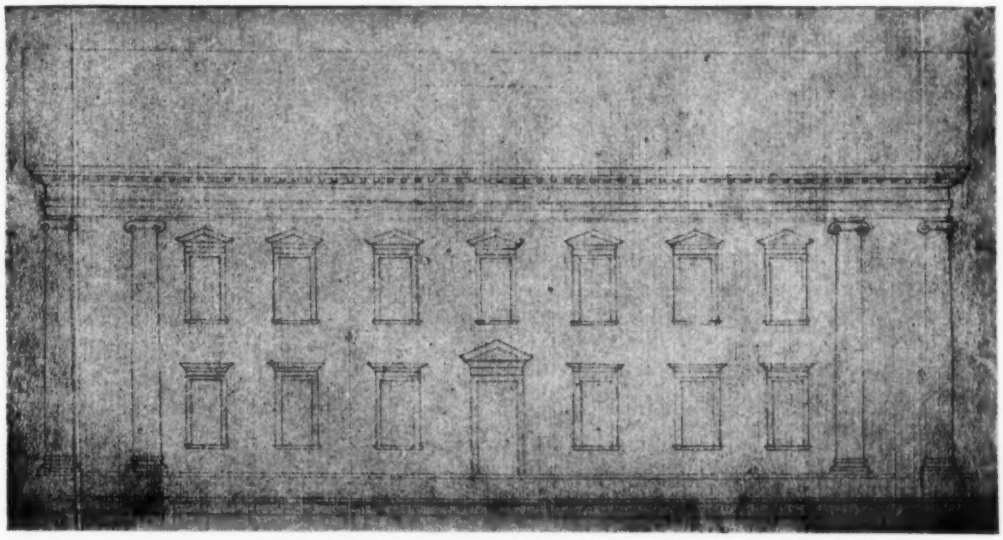


FIGURE 6

adjustment of the fenestration, but the faces of the corner columns project so little beyond the outer face of the walls as to make it evident that only pilasters could have been intended, and they perhaps only at the corners. The diameter of the columns shown would result in an intercolumniation of about two and a half modules, against one and three-quarters for Clérisseau's Maison Carrée and Jefferson's first study. The eustyle intercolumniation of two and a quarter modules is indissolubly associated in Palladio's formulæ with the Ionic order (Book I, Chapter 13), and is used in Jefferson's studies for the elevations with Ionic columns. There can be little question, then, that the change from Corinthian to Ionic was already proposed when the plan in hand was made. The third plan shows not even a vestige of colonnade, yet it may safely be assumed from the position of the cella on the paper that a single deep portico was again intended. That this drawing was made later in order may now be proved. The other plans, including first study, were made on one kind of engraved coördinate paper, the elevations which embody the final version are on another kind, likewise engraved. The drawing just considered, on an improvised sheet, imitating the style of the earlier engraved ones, must obviously fall between the two groups, and hence proves to be the latest study for the plan.

The elevations do not correspond exactly to any of the plans, but show further changes of dimensions and proportion of the same sort as those between one plan and the next. This may point to a certain interval between the dates of composition, and possibly to the making of intermediate studies, now lost; but it must not be forgotten that Jefferson's mathematical methods made it possible to derive an elevation without drawing the corresponding plan. The difference of paper is not significant, as we know that Jefferson had temporarily run out of the red-lined paper even before he made the latest of the plans.

One of the elevations (Fig. 6) shows the side of the building with a portico at each end, one bay deep, as in the intermediate plan. The Ionic order is of the conven-

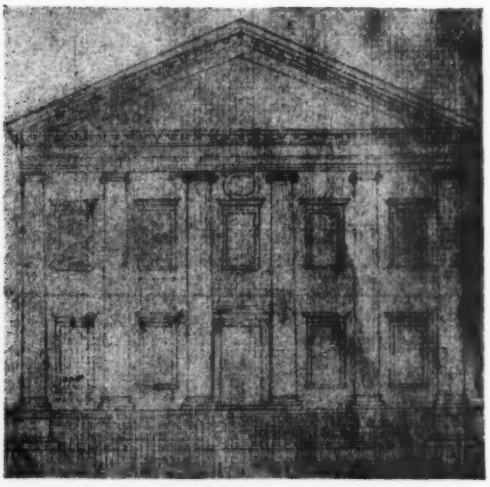


FIGURE 7

tional Palladian proportions, with a module of 4 feet 2 inches. As in the intermediate plan again, pilasters only respond to the columns; they occur merely at the corners of the building, and are moved away from the end windows in an effort to widen the rooms inside while keeping the windows symmetrical in the rooms. The model and the building show that the experiment with two porticos was not considered successful, and that the accepted studies are the drawings reproduced in Figs. 7 and 8. The equality of modules and heights between these two drawings proves that the front elevation here belonged with this side elevation, and not with the previous one.

The scheme shown retains the single portico of the original, but this is two columns in depth instead of three, and the cella has no ordonnance but a single pilaster next to the portico. The building is laid out on a module of 4 feet 4 inches, with the column nine modules high, the entablature one and four-fifths, and the intercolumniation two and a quarter modules, all as recommended by Palladio (Book I, Chapters 13 and 16). The total length of the building is almost exactly what would be obtained by figuring the length of a columnar building of the same number of bays and the same module. The relation of the pilaster-respond to the end window is not changed as in the rejected study, and the fenestration is such that pilasters might be added without any change in the windows (as they actually were added when the building was erected). The proportions of the end rooms, approximately calculable on the assumption that they were still based on the fenestration, lie between the long-and-narrow form of the first study and the two-to-one ratio desired.

The forms of detail—doors, windows, cornice, and capitals—are all forms shown by Palladio, which Jefferson had already used with equal literalness in his designs for Monticello.[1] Certain problems met here for the first time, such as the Ionic capital on the angle and the return of the corner pilaster, are handled in a tentative and unsuccessful way, but in general the design is well studied and consistent. As in Jefferson's earlier work, the classical forms are still rationalized according to Palladian rules; the height of the pediment, for instance, is determined by Palladio's general formula, two-ninths of the span, instead of the proportions given for the Maison Carrée. Indeed we now see clearly that Jefferson's insistence on the exactness with which he had followed the Maison Carrée was largely to prevent further tampering with his design, and that the design really departed from its model in almost every way,—in dimensions, in proportion, in ordonnance, and in detail. For the first time in Jefferson's work, however, the whole effect is not merely Palladian; the temple form appears—it is Palladianized Roman.

The relation of Jefferson's description to the studies now becomes clear. The notes from which it was worked up, since lost, must have included calculations similar to those which we have in his note-books

[1] Kimball: Monticello, esp. Figs, 22, 25, and p. 128.

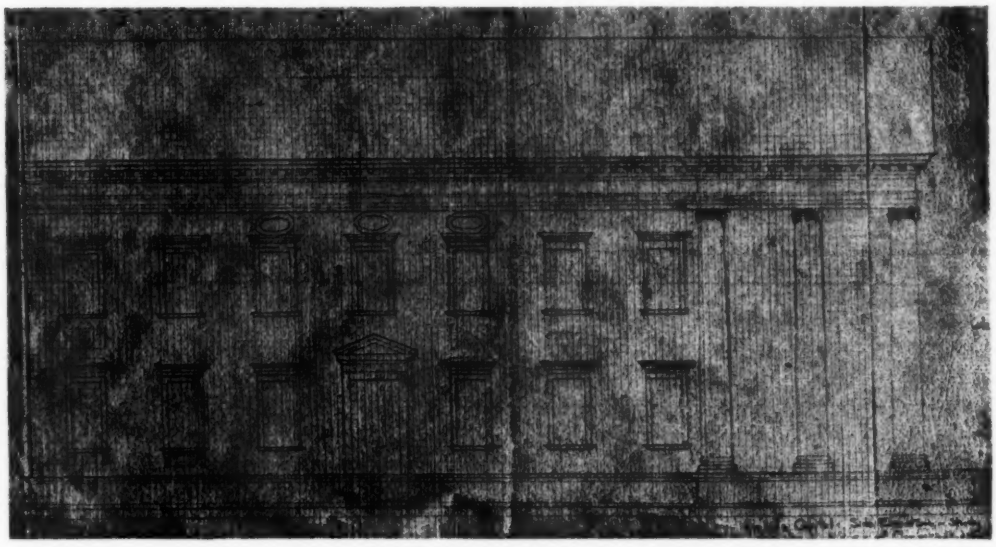


FIGURE 8

for Monticello, with the parts of the order figured out on a modular basis. In re-deriving the dimensions of the building after a long interval, it is not surprising that certain discrepancies should have crept in, and the correspondence between the description and the final studies (see Table, page 434) is sufficient to remove any doubt that the description refers essentially to the building as shown by them. Its differences from the first study are wide, and the most precise coincidence of the module and heights with the rejected elevation, otherwise very different, is apparently accidental. There can be no further doubt that the drawings given to Clérisseau at the time the notes were made were those we have identified as the final studies. Jefferson's authorship of them and his own essential completion of the design are thus given another confirmation.

That Clérisseau did make some positive contributions to the design, however, is also certain. What some of these were appears in the soft-pencil lines added with professional facility to Jefferson's laborious and precise elevations. They occur in the front view and the final side view, the rejected side view having none. The principal changes affect the enframements of the doors and windows and the slope of the pediment. Consoles were added at the sides of the doors and beneath the window-sills, panels were introduced below the sills of the first-story windows and between the upper and lower ranges, and minor changes in the size and projection of the cornice-members were indicated. The apex of the pediment was lowered so that its proportions, instead of being Jefferson's favorite, 2 : 9, corresponded to the slope of the Maison Carrée as shown in Clérisseau's engraving. Pedestals were suggested to buttress the steps which were necessary to reach the side doors.

D. The Model Preserved at Richmond.

The interpretation of the studies which has been given is confirmed by the model preserved in the Virginia State Library. (See frontispiece in the Journal for September.) Because of differences between this and the building as executed, doubts have

sometimes been expressed as to whether it is the original model sent from France. In fact these very differences should have precluded any idea that the model could have been made subsequently, unless for some remodeling. Its exact correspondence with Jefferson's drawings, as corrected, now removes this last possibility. As a further check on the authenticity of both, however, we have with the vouchers at Richmond, the directions for unpacking the model in the handwriting of Bloquet,[1] its maker. They say; "le fond de la petittes quesse est attacher au plateaux du modelle avec 6 visse en fer pour le rendre immobile dans la quesse." The holes for these screws, just six in number, still exist in the under side of the platform.

The model shows the design essentially as in Jefferson's final studies, with the modifications indicated upon them by Clérisseau. There are some further changes of relatively slight importance: the frieze and cornice of the second-story window-caps are removed and small oblong windows are placed over them; the pediment of the side door is replaced by a horizontal cornice, the steps at the side are turned along the building, the columns and pilasters are fluted. The actual dimensions of the model are, in general, with great exactness, twice the corresponding dimensions of Jefferson's final studies. The scale of the model then must be five English feet to the English inch. That Clérisseau made practically no change in Jefferson's dimensions is further evidence of the correctness of our conclusion that his part was secondary.

E. The Drawings Prepared by Clérisseau's Assistants.

The final drawings sent to Virginia are not preserved at Richmond and a thorough search has failed to discover them elsewhere. The "ground plan, the elevation of the front, and the elevation of the side," which accompanied Jefferson's letter of January 26, 1786, arrived safely, as we know from their acknowledgement. The second-story plan was probably also included, as it appears with the others in Clérisseau's bill to Jefferson. The sections referred to in Jefferson's letter of transmission were probably never completed, as no item in payment for them appears in any of the accounts, and as the Commissioners' letter which crossed Jefferson's must have made him skeptical of the adoption of the plan.

The subsequent fate of these drawings is made clear by the following letters. On July 11, 1791, David Stuart, one of the commissioners for the new Federal City on the Potomac, wrote to Governor Beverly Randolph, of Virginia:

". . . Major L'Enfant is about drawing a model for the house of Legislature. I have mentioned to him the one sent in by Mr. Jefferson, which he desires to see. If there is no impropriety in it, I would beg you to send it to him by stage. His residence is at Geo. Town. If not adopted it shall be returned immediately."[1]

Two weeks later the Governor replied:

". . . Your favor of the 11th inst was duly received and would have been immediately answered but for the absence of Mr. Hay one of the directors of the public Buildings—I did not suppose that you expected the model of the Capitol in plaister of paris to be forwarded by the Stage. I therefore called upon Mr. Hay for such drafts of the house as had been sent from France by Mr. Jefferson. You will receive enclosed in a small tin case a Draft of the Ground plot, together with a side and front view of the Building which I beg may be returned as soon as Major L'Enfant can take copies of them as I am told they are essentially necessary for the Completion of some work here. . ."[2]

On August 5 Stuart again wrote:

"I have received your letter accompanied by the draft of the Public Buildings, and return to you my thanks for your kindness. As soon as Major L'Enfant is done with it, I will return it . . ."[3]

[1] The entries in Jefferson's accounts give the name as Fouquet, but the vouchers are signed unmistakably Bloquet.

[1] Calendar of Virginia State Papers, Vol. 5, p. 342.

[2] Letters of the Commissioners of Public Buildings, 1791–93, Vol. 1, p. 20.

[3] Calendar of Virginia State Papers, Vol. 5, p. 356.

The promised return was never made, however, as we learn from a letter of March 18, 1799, written to Governor James Wood by William Hay, then retired from the Directors of Public Buildings:

"At the time the late Beverly Randolph, Esq., was Governor, the Plans and Drawings of the Capitol and the Public Prison, which were sent from Paris by Mr. Jefferson, were delivered to him, and were by him transmitted in a tin case to the Directors of the Public Buildings in the Federal city. Since that time I have never seen them. . ." [1]

The reason for this is not far to seek. L'Enfant was dismissed from the government service in February, 1792—about six months after the time the Capitol drawings were entrusted to him, leaving the custody of his papers in dispute. The Commissioners claimed that he declined to pass over the papers of his office; he protested that they were stolen by order of the Commissioners during his absence[2]. Many of L'Enfant's personal papers are now the property of James Dudley Morgan, Esquire, of Washington, but the Virginia drawings are not among them, nor do they appear to be preserved in the Library of Congress nor in the office of the Commissioner of Public Buildings and Grounds.

Fortunately the lack of the final drawings of the Virginia Capitol makes no serious gap in our information. There is no reason to question their exact correspondence to the model prepared from them. If the model had been corrected from the drawings in any important respect, Jefferson would have undoubtedly called attention to it, as he did to his desire for a deeper portico. The executed building, as we shall see, itself gives no evidence contrary to the assumption of identity, which may thus be taken as established.

More to be regretted is the absence of the discarded set of drawings referred to by Clérisseau in his bill to Jefferson, which says "Il faut observer que tous les dessins ont eté obligé d'estre fait deux fois avant de les dessiner proprement." These might throw further light on the development of the design and on the relative contributions of Jefferson and Clérisseau, but so far they have not been located. There exist at the Winter Palace in Petrograd twenty volumes of Clérisseau's Roman architectural drawings bought by Catherine II.[1] If these were purchased during his stay in Russia in 1778–82 they cannot, of course, include the drawings of which we are in search. It is possible, however, that the purchase was made or supplemented in 1797 when, as we have seen, Clérisseau sought to dispose of his library. A letter addressed to the curator in Petrograd has brought no reply.

The necessity for a complete re-drawing while the matter was in Clérisseau's hands is difficult to explain, if Clérisseau had in hand from the start Jefferson's final studies with which the model agrees. It might imply merely that Jefferson changed his own ideas, or it might be thought to indicate that some of the changes which we have traced in the course of his studies resulted themselves from suggestions from Clérisseau, prior to those indicated on the elevations. While these questions cannot be decided with certainty, a number of statements, not wholly consistent, may be brought to bear upon them.

In his letter to Douglas, Jefferson states that his description is written from notes made when he gave the plan to Clérisseau, yet the dimensions given in it correspond so closely with those of the final elevations as to make it improbable that a drawing was undertaken merely for the sake of changes so slight. The notes, however, may well have been made on Jefferson's giving Clérisseau a second, revised plan.

Jefferson says in his letter of January 26,

[1] Calendar of Virginia State Papers, Vol. 4, p. 10.

[2] Records of the Columbia Historical Society, Vol. 2, pages 139–142 and passim.

[1] F. Noack in Thieme-Becker: *Künstler-Lexikon*, Article Clérisseau.

1786 that it was Clérisseau who suggested that the portico be made only two columns deep, yet this arrangement appears already in Jefferson's final side elevation. He says, however, that this was the only instance in which Clérisseau persuaded him to depart from the prototype.[1] Numerous others remain, some of which at least seem more consonant with French methods of thought than with Jeffersonian methods. The complete omission of an engaged order, while it had ample precedent in other classic temples and might have resulted solely from economy, suggests the puristic ideas of eighteenth century *architecture raisonée.* This appears above all in the rejected side elevation with its shallow porticos at both ends, so much better than the single deep portico for the expression of two rooms of equal importance, yet so contrary to Jefferson's declarations concerning the dangers of departure from the antique precedent.

Possibly a clue may be found in certain passages hitherto unstressed. Jefferson's Memoir says: "I applied to M. Clerissault . . . to have me a model of the building made in stucco, only changing the order from the Corinthian to the Ionic." Clérisseau's bill uses the words, "les plantes du model," for the plans of the building. It would seem that in the first instance a close approximation had been wanted, doubtless with engaged columns and windows between, as in Jefferson's earliest plan; and that a set of drawings along these lines was begun under Clérisseau's direction. Meanwhile, however, Jefferson doubtless discussed the matter with Clérisseau, who may well have made criticisms and suggestions which Jefferson canvassed, along with fresh ideas of his own, in further studies,—the two later plans and the elevations, which now first became necessary. He apparently decided not to use the two portico scheme, but determined to substitute the other modified study for the scheme already under way. He must now be assumed to have made the notes on which the description sent to Douglas was based, and given the drawings to Clérisseau, who revised their detail, but had his assistants draw them up otherwise unchanged, producing the final drawings sent to Virginia.

[1] In Jefferson's Memoir he mentions also the substitution, at the instance of Clérisseau, of "the modern capital of Scamozzi" for the "more noble capital of antiquity." The capital of Scamozzi, with four pairs of volutes, placed diagonally on the corners, was indeed used in the building but the capitals were not added as we shall see, until a late date, after the original drawings had been lost. The model shows the Roman Palladian capital which Jefferson had used in his studies and elsewhere. As Jefferson makes no mention of a discrepancy between the model and the drawings in this respect, as he certainly would have done had he troubled to have the model corrected, it is reasonable to believe that the final drawings showed this also, and that Jefferson's memory was deceived by the change in execution.

F. Growth of the Design and Responsibility For It.

The growth of the design and the responsibility for it should now be fairly clear. Jefferson's statements in his Memoir are substantially accurate, but understate his own part; his letters, though doing better justice to his share, purposely exaggerate the responsibility of Clérisseau and the imitation of the antique. In the letters to Madison and Randolph this is easily explained as due to delicacy in claiming credit for a design whose adoption he was urging on grounds of superior merit; in the letters to the Directors, as calculated to prevent departures from the scheme. The drawings and the model show that the design, though a classic adaptation developed with some criticism, was essentially his own. The idea of such an adaptation was itself his; the Directors' sketch gave only the practical requirements and a limiting dimension. Clérisseau's attempts to rationalize the plan show that it can scarcely have been he who suggested the literal imitation of the temple form. Jefferson not merely selected a model for the exterior, and determined the arrangement of the interior, but fixed every principal dimension, both inside and out, after elaborate study and the rejection of many alternatives,—the final result having nothing in

common with its prototype except the general form. The Ionic order, with the changed proportions which its adoption necessitated, was apparently his idea. The omission of the order along the sides of the building may or may not have resulted from a suggestion by Clérisseau, but the new fenestration was his own. To Clérisseau are due, beside the reduced depth of the portico, certain minor changes, and the final forms of the details, which influence the stylistic aspect of the body of the building but not its mass, subdivision, proportions, or interior arrangement. If one man is to be designated as the architect, it must unquestionably be Jefferson.

The plan, which is wholly his, is boldly and logically conceived, with the principal rooms occupying the axial positions, the minor elements well subordinated. The major balance is not between the two branches of the legislature, as in the typical capitol of today, but between the judicial branch and the legislative, as represented by the House of Delegates. Perhaps the democratic tendencies of Jefferson account for this identification of the legislature with its popular house, for, in practice, the court scarcely needed a larger room than the Senate. The conference-room, as the central hall is called, is a feature which corresponded with the existing Virginia Constitution, according to which the ballots of each house for governor, and so forth, were to be deposited and examined "in the conference-room." [1]

The exterior is an interesting compound of classicism and French academicism. The consoles and garlanded panels of the cella recall rather the manner of Gabriel than of Palladio, as suggested by the earlier studies. Whatever the motive was in omitting them, the lack of pilasters along the sides, though it weakens the unity of portico and cella, conforms at once to classical and French structural purism. The exterior has the sleekness and accomplishment self-understood in eighteenth-century France, with nothing of the unstudied artlessness of colonial America, and with a grandiose classic quality still relatively novel abroad—admirably symbolizing the aspirations of the new republican state. The glaring defects in the relation of the portico to the interior resulted from the antithesis which lay in the very program. As in the Roman triumphal arch and in Perrault's colonnade of the Louvre, it was the civilization and majesty of the State which were to be symbolized, and the columns were used not only as elements of intrinsic magnificence but as trophies of the classical culture of the builders. The portico was a frontispiece to all Virginia.

[1] The Constitutions of the Several Independent States of America . . . 2d edition. Boston, 1785, p. 126

DIMENSIONS & RELATIVE PROPORTIONS SHOWING DEVELOPMENT OF THE DESIGN OF THE VIRGINIA CAPITOL

ONLY SIGNIFICANT DIMENSIONS ARE GIVEN IN EACH CASE	DIRECTOR'S SKETCH	PALLADIO'S MAISON CARRÉE LEONI, BK. II, PL. 87		CLERISSEAU'S MAISON CARRÉE ANT. de FRANCE		JEFFERSON'S PLAN No. 1.		JEFFERSON'S PLAN No. 2.		JEFFERSON'S PLAN No. 3		JEFFERSON'S SIDE ELEVATION REJECTED		JEFFERSON'S ACCEPTED FRONT & SIDE ELEV.		JEFFERSON'S DESCRIPTION		MODEL~		FOUNDATION LAID BEFORE RECEIPT OF JEFFERSON'S PLAN	MEASURED DRAWINGS 1858	
	ENGLISH FEET	VICENTINE FEET	MODULES	FRENCH FEET	MODULES	ENGLISH FEET	MODULES	ENGLISH FEET	MODULES	ENGLISH FEET	MODULES	ENGLISH FEET	MODULES	ENGLISH FEET	MODULES	ENGLISH FEET	MODULES	ENGLISH INCHES	SCALE 1"=90'	ENGLISH FEET	ENGLISH FEET	%OVER MODEL
COLUMN-DIAMETER		2'-9" CORINTHIAN	1.	2'-9" DORIC/THAN	1.	< 5'-5"	> 1	< 3'-6½	1			4'-2"	1	4'2" to 4'6"	1@4'4"	4'2"	1		(d)	(e)	4'8"	c10½
LENGTH OVTSIDE OVER ALL	153'6"±	71'6"	26	c 76'2"	28.4	153'9½	28½	c 125'				134'		131'-6" (131'-0½)	@30½	?134' 132'0½	@30±	26⅝"	131'10	146'	146	10
WIDTH OVTSIDE OVER ALL	119	36'2"	c13¾	40'8⅜	14.8	80'	14¾	64'6"	18.4½	(a) 70' (b) 64'6"		est. c 73'	@17½	c 74'-6" (74'-9")	17.2 @17±	71'10½	@17½			118'	84'6"	
WIDTH OVTSIDE ASHLAR LINES	95	35'5"	c12¾			74'		64'		64'		est. c 70'6		est. c 72'10		? 70' est. 70'-5⅛		15⅛	75'4½		83'6"	11
ORDER-TOTAL HEIGHT		34'4½	12±	34'2⅛	c12±							45'		(c) c 46'10" (46'9⅞)	@10⅛	? 45'	10⅛	9½	47'6½		53'	14
COLUMNS ~ HEIGHT		27'6"	10	27'5⅞	c10							37'6"	9	(c) 39'	9	est. 37'6"	@ 9	7⅛	39'4½		44'6"	14
ENTABLATURE-HEIGHT		6'10½	2±	6'11"	2.53							7'6"		c 7'-10" 7'-9½	@1⅛	est. 7'6"	@ 1⅛				8'6"	13
INTERCOLUMNIATION		Normal 4'11 Center, 5'2"	1⅛ c 1⅜	Axial 9'1 4/8 Center, 9'0⅛	1.74	c 9'6"	1½	est. c 8'6"	c 2.5			c 9'4"		Normal 9'6" Center, 10'	(9'-9") @2⅛	est. 9'4½	@ 2⅛					
PROJECTION of PILASTERS OR ENG'D COLUMNS		1'-4½"	½	2'		3'						est. 8'5"	@ ½	10" ± 8⅛"	@ ½	est. 8'5"	@ ½					
PEDIMENT (3 UPPER CORNERS OF CYMA) WIDTH				c 45'-6"																		
PEDIMENT (3 UPPER CORNERS OF CYMA) HEIGHT				c 6'6"																		
PEDIMENT (3 UPPER CORNERS OF CYMA) H ÷ W				1:7-:527												2:9-:627					(f) c 5:27	
CELLA LENGTH OVER ALL						109'		est.		(a) 104' (b) 98'6"		107'3±		105'-2"		est 106'6" 98'-11½	@2'3½					
CELLA LENGTH OVTSIDE ASHLAR LINES	127' or 128'-6"					103'		100'		98'		est. c 106'		104'4"		?106'	c 2'0±	102'-6½			112'4"	
THICKNESS OF OVTSIDE WALLS		2'-9"	1			2'		2'		2'				c 3'		3'						
HOVSE of DELEGATES LENGTH INSIDE	74'					70'		60'		60'		est. c 64'6		est. c 67'		64'				? 75'	75'9"	
HOVSE of DELEGATES WIDTH INSIDE	30'					25'		30'		30'		c 26'		c 26'		30'				? 35'	31'	
ROTVNDA DIAMETER INSIDE						43'		30'		30'		36' to 40'		c 40'		36'					35'	

NOTES
(a) WITH ENGAGED COLVMNS
(b) " " PILASTERS
(c) THE COLVMNS OF THE FRONT ELEVATION ARE DRAWN 1'8" HIGHER, BVT THIS IS CORRECTED BY FIGVRED DIMENSION & NOTE.
(d) ERRORS IN MEASVREMENT ARE INCREASED IN MVLTIPLYING
(e) DIMENSIONS AT THE PRINCIPAL STORY WOVLD HAVE BEEN SOMEWHAT LESS
(f) MEASVREMENT ON PHOTOGRAPHS GIVES 2:9

Seen from The Octagon

SCARCELY three weeks ago a monster steam-shovel made its appearance in the vacant lot which faces the Octagon across Eighteenth Street. Its arrival was neither wholly unheralded nor unsuspected, for we had all realized for some time that the inevitable day was coming, and with swift wings. A giant is this terrible monster, the noise of which has put an end to all conversation in gentle tones within the Octagon and turned these peaceful precincts into a smoking, puffing, and wheezing pandemonium.

Burrowing its iron claws into the sloping earth, the character of which is admirably adapted to its operation, its capacious maw emerges with a load which amply suffices to fill the cart which stands waiting to receive it. At first, there was a steady crawling line of carts, going to and coming from the site of the Lincoln Memorial. For it will no doubt be remembered that the monument which is to commemorate the greatness of Lincoln is to rise from a gently sloping mound, a great part of which will be formed by the earth excavated from the lot which faces the Octagon and whereon is to be built the new home of the Department of the Interior. The site of the memorial was quite flat, a fact which offered a welcome opportunity to the Treasury Department, under the supervision of which the building was planned and is to be erected.

But the crawling lines of carts have now been partly superseded by a stodgy little locomotive, which also adds its puffs and snorts and wheezes to the general discord, as it labors its way over a treacherous iron roadbed which has been temporarily permitted through the streets and the mall. And another smaller shovel has been set at work filling the fewer carts which crawl up from the lower levels of the excavation. This newest of departmental buildings is to occupy the entire block bounded by Eighteenth and Nineteenth Streets, F Street and New York Avenue. At the point immediately opposite the Octagon it will rise to a height of about one hundred feet, we believe, greatly changing the old-time appearance of this section of Washington. Only two years ago, the windows of the Octagon looked out upon the Washington Monument and across the level plain beside the Potomac, to where the pillars of Arlington stood white among the foliage on the sharp rising hill across the river. But the Navy Building then reared its ten stories on the other side of New York Avenue and blotted out a view the loss of which we shall never cease to regret.

The site of the new building, which is destined even more greatly to affect the surroundings of the Octagon, was largely a vacant plot of ground. A few houses clustered at the corner of Eighteenth and F Streets. None of them possessed any marked architectural character, but a certain air of indefinable interest seemed to hover about the very large house which stood at the exact corner. In some ways it might have passed muster if transplanted to Lincoln's Inn Fields and associated with Mr. Tulkinghorn, but here it lacked the surroundings necessary to such a romantic affiliation. It possessed only a few random bits of architectural charm, and yet there were some who never passed it without feeling that it had once been the scene of events of more than passing moment, and that it had a history into which one might venture with both pleasure and profit. But suddenly, although with a warning which one might have heeded, a group of wreckers were to be seen scrambling about its premises. Before we had time in which fully to realize its impending doom, it had

quite disappeared. In less than three days its site had been made as vacant as the rest of the square over which it had so long stood a rather silent and somewhat mournful guardian.

What we shall miss are the trees which have already been sacrificed. They grew all over the lot, were of great size, and gave the quarter an almost country-like appearance. Their cutting down will bring us no compensation whatever, for we still do remember that the erection of the Navy Building did relieve us of the far too close view of a miserable and unbelievably vile cluster of hovels in which what are popularly known as the "dregs" of a great city appeared to pass a semblance of human existence. We may certainly be forgiven for having wished, and even for still wishing, that the view which was once ours might have been preserved to us in some other manner, and that those hovels might have been made to give way to something less than a ten-story building.

Now, with the completion of the new building of the Department of the Interior, we shall be left only the little parked space at the intersection of New York Avenue and E Street. Happily, this cannot be invaded. The worst that can befall is that another huge building may be erected on the farther side of it, thus shutting out the straggling bit of distant prospect which comes with the falling of the leaves and which is now the sole remaining remnant of the wide and lovely landscape which greeted Colonel John Tayloe and General George Washington when they came to choose the site of the Octagon House.

As Seen from the Octagon on September 17, 1915

School Building in Michigan and Connecticut

IN THE last number of the Journal we had the pleasure of recording the noteworthy action of the Building Committee of the new city hospital at Miami, Florida. Convinced that the Institute had framed the only regulations governing a competition which insure fairness to all the interested parties—the single basis upon which any competition should be carried out—this committee asked the help of the Institute in selecting advisors.

How different is the attitude of the Board of Education in Marquette, Michigan! We quote, from a local newspaper, the resolution governing their choice of an architect:

"Resolved, That nine architects be asked to submit floor plans and sketches of high school building in black and white, and estimate cost of said building upon a competitive basis. Three prizes of $50 each to be paid for three best sketches, except that the architect to whom the contract is awarded shall not receive a prize. The board of education shall be the sole judge in the competition with such experts as it may see fit to engage. Preference will be given to plans and sketches of architects who make personal visit to the proposed site. Sketches must be submitted on or before Aug. 12th, 1915. All sketches to be the property of the board of education."

"This resolution," says the "American School Board Journal," for September, "violates practically every known principle of architectural competitions. To persons who are at all familiar with the customs of architects it displays a lamentable ignorance, assuring in advance the defeat of the very purpose it is intended to achieve and affording loopholes for unfairness on the part of the competitors and favoritism on the part of the board members.

"Without entering in detail into the defects of the resolution it may be said that the board presupposes that architects are tradesmen who are willing to prepare and submit plans for examination, just as a merchant presents samples of merchandise. They offer to six architects no compensation for sets of sketches, which, if technical preparation and experience are added to the cost of actual drawing are worth not less than $3,000 each for a building costing $100,000. Five laymen set up themselves as sole judges of plans that involve difficult technical problems such as can be judged accurately and completely only by an expert. The members, if they may see fit to engage experts, do not agree to follow their advice. An outline of the requirements is not offered equally to all competitors, but such as visit the site are to be preferred. Only two weeks are given to a problem that cannot be well studied in any architect's office in less than a month or six weeks' time. Finally, the board does not absolutely agree to accept one of the sets of plans and may, if it desires, throw out all plans.

"An architectural competition is the least satisfactory of the several methods of obtaining plans for a new schoolhouse. It is frequently necessary when many architects press their claims, but it is successful only when conducted with rigid fairness and with due consideration of all the principles formulated by the American Institute of Architects. These principles are not the arbitrary dictum of a portion of the architectural profession; they are the result of many years' experience and observation, and simply state the conditions which will assure fair and honest conservation of the rights and interests of the architect and of the owner.

"Space prevents a discussion of the principles of architectural competitions. A few of the most important can, however, be restated because they are most commonly overlooked by school boards:

"First, competitions must recognize the professional and technical character of the services rendered by architects.

"Second, the program must contain a complete technical statement of the problem, and fix fair, definite conditions under which the drawings are to be submitted. A man familiar with competitions should be called upon to draw up these conditions.

"Third, the architects invited should be competent and honest, and evidence of these qualifications should be required.

"Fourth, the selection of plans should be in the hands of a competent expert, who has had training, experience, and a preëminent reputation as a schoolhouse architect.

"Fifth, the competition should be a definite contract between the architect and the school board, and should provide for the employment of the successful competitor or for adequate compensation for the drawings, if the project is abandoned.

"As a basis for competition, the resolution of the Marquette School Board is defective in every one of these five essentials. It is of a character that will permit no self-respecting architect who values his pro-

fessional reputation to enter, and will undoubtedly be condemned by the American Institute of Architects before this issue of the Journal is read. Instead of an impartial competition, it will provide for a scramble in which the man or the firm that can furnish the flashiest drawing and make the most extravagant promises will win. If we were not certain that the members of the board are wholly honest and upright we should say that the competition has all the earmarks of political jobbery."

This admirable statement by the "American School Board Journal" could be applied with equal force to the statute governing the employment of architects by the state of Connecticut, which is as follows:

"Sec. 1. Whenever any building is to be erected by the state of Connecticut, in the designing or construction of which the services of an architect shall be required, the comptroller shall give public notice, for not less than one month, through the public press, that such building is to be erected, together with a statement of the amount appropriated therefor, and other details of the proposed construction, and that any and all architects who may see fit may submit plans, specifications, and estimates of cost for the construction of such building.

"Sec. 2. [Covers the furnishing of additional information upon application.]

"Sec. 3. [Provides for the reception of the plans by the comptroller, and the delivery of them by him to the board or commission charged with the control of the undertaking.]

"Sec. 4. Said board, committee, or persons having charge of the supervision or construction of such building and the selection of plans and specifications therefor, shall give a public hearing to all parties interested, who shall have ample opportunity to present the merits of any of said plans and specifications.

"Sec. 5. Said board, committee, or persons shall have the right to accept any one of the said plans and specifications, and may reject any or all of them, and such selection shall be conclusive."

Recently, when the state proposed to erect a Training School for Feeble-minded, the comptroller caused the usual public notice to be inserted as an advertisement, including the following paragraph; "The architect of the plans selected by the committee in charge will be employed to prepare the working drawings and specifications and to superintend the construction of the building. For his compensation he will receive the commission authorized by the American Institute of Architects. No compensation shall be paid for plans not finally accepted." Upon application, such architects as cared to respond were furnished with a typewritten statement which could not possibly be construed as a program, and which concerned itself chiefly with the description of a building in another state, which had greatly pleased the committee. Four days before the time for filing plans, supplementary information was sent out, in which the following statement was made:

"The members of the Board of Trustees have spent nearly two years in study of the design and material to be used in the buildings to be erected. They can, without expense to the state, put their hands upon plans and specifications which would be acceptable to them. While, therefore, they recognize that there is always a possibility for improvement, they are in the market not so much for designs and suggestions, as for supervision of the work to be done. This is the first point. The second is, that the method of selecting an architect is prescribed by law. Having decided that we need an architect principally in order to secure adequate supervision, the law requires us to advertise for competitive designs, any or all of which we can reject."

Tempting as is the opportunity, we refrain from further comment upon this episode. We believe that in the history of architectural competitions that statement will forever occupy a unique and secure position. It certainly ought to be of particular interest to the authorities of the city of Providence in the adjoining state.

The New Standard Documents: IV

By WILLIAM STANLEY PARKER

7. The New Articles of the General Conditions, concluded.

Article 22. Guaranty Bonds.

This is a new Article. Its object is merely to establish the right of the Owner to require a bond, and to establish the fact that the Owner will allow the premium as an extra if the bond is not required until after estimates have been received.

Article 23. Cash Allowances. (Cf. Old Article 25.)

This Article is a revision of the first paragraph of old Article 25. The second paragraph has been omitted as it appeared to be merely routine business detail. There is no change in the intent of the Article. The statement that the Contractor shall assume responsibility for the work of sub-contracts covering allowances, noted in the old Article, is not repeated as it is adequately stated in Article 43.

Article 24. Changes in the Work. (Cf. old Articles 20, 22 and 23.)

The new Article makes no departure from the intent of the old Articles, but consolidates the three Articles into one and eliminates all the details of adjustment noted in old Articles 22 and 23, merely indicating the various methods commonly adopted. The new Article is careful to note that, while changes are normally not valid unless made pursuant to written orders duly signed, work done in an emergency, as provided in Article 18, and work done under order of the Architect acting as special agent of the Owner, as provided in Article 9, are exceptions and the Contractor can recover extra remuneration as approved by the Architect or arbitrators.

Article 25. Claims for Extras. (Cf. old Article 21.)

There is no change except in phraseology. The reference to "the last paragraph of Article 24" ought perhaps to read, "the last two paragraphs," as it is obviously intended to refer to the various methods of determining the value of the work on which a claim is based.

Article 26. Applications for Payments. (Cf. old Articles 14 and 15.)

In old Article 14 the schedule was "for the use of the Architect at his discretion." The new Article provides that it "shall be used . . . unless it be found to be in error." It was felt that if such a schedule were prepared it should be definitely accepted by both parties as the basis for adjustment of payments, unless certain items were found later to be incorrect or perhaps padded so as to increase the earlier payments. The new Article provides for the submission on request of evidence as to payments to Sub-Contractors. This is in accord with Article 28 which permits the withholding of a certificate if the Contractor has failed to make such payments properly; and reference is made to Article 44 where the matter of payments to Sub-Contractors is determined.

Article 27. Certificates and Payments. (Cf. old Articles 16, 17 and 35.)

The only new provision in this Article is the restriction of the waiver of claims involved in the acceptance of final payment. In old Article 16 the waiver is made absolute, which however operates to hold up the final payment until all claims are settled and often proves a great hardship to the Contractor. If the Owner has an unadjusted claim which may reduce the balance due the Contractor, the final payment will naturally be withheld pending a decision; but the determination of some additional payment due the Contractor should not delay the payment of the usual retained percentage, about which there is no question; and the Contractor obviously should not be required to waive such unadjusted claim in order to get the retained percentage. The new Article, therefore, provides that the making and acceptance of the final payment constitutes a waiver by the Owner of all claims except such as may later arise on account of liens (Article 29) or correction of work (Article 16) and a waiver by the Contractor of all claims except those previously made and still unsettled.

Article 28. Payments Withheld. (Cf. old Articles 18 and 24.)

Four justifications for withholding payments are named. The first two, uncorrected work and liens, are those covered in the old Articles. In adddition to these the new Article permits payments to be withheld if the Contractor has failed to make payments properly to Sub-Contractors or for material and labor, and if a reasonable doubt exists that the contract can be completed for the balance then unpaid.

Article 29. Liens. (Cf. old Article 24.)

The provisions relating to liens are not markedly different from those of the First Edition. The first part of old Article 24, forbidding the filing of liens,

is omitted as it is applicable only in a very few states, where it should be added in a special article.

The Contractor may be called upon to deliver a release of liens if required, but may furnish a bond in lieu of the release if unable to secure a release from a Sub-Contractor. The Contractor is made responsible for costs and attorney's fee in connection with discharging any lien or claim.

There is much diversity in the lien laws of the different states and the provisions of this article should be compared with local laws in order to assure the most complete protection of the Owner.

Article 30. Permits and Regulations. (Cf. old Article 53.)

There is no substantial change in these provisions.

Article 31. Royalties and Patents. (Cf. old Article 56.)

The old Article has been much abbreviated without changing the essential provisions. While this Article affords a necessary and reasonable protection to the Owner the Contractor has sometimes suffered unduly on account of it. In one case certain equipment was built from complete details furnished by the Architect but was later found to be identical with a patented article and the Contractor was forced to pay an indemnity to the patentee. The Article had been intentionally copied but doubtless without intent to avoid the patent. Wherever possible the Contractor should be protected from losses of this sort.

Article 32. Use of Premises. (Cf. old Articles 45 and 58.)

In many cases the prohibitions of old Article 58 are unnecessary, but they are very often desirable to a certain extent. The new Article gives the Architect power to make such provisions as he deems wise. Otherwise the new Article merely brings together closely related provisions previously separated.

Article 33. Cleaning Up. (Cf. old Article 57.)

No important change in wording has been made. There remains the phrase "clean and ready for use," different only in the substitution of "clean" for "thoroughly cleaned." This phrase is often a source of trouble in determining the degree of cleanliness to be expected. It must be interpreted in the light of commonly accepted local practice and wherever any special care is desired in the final cleaning of a building it should be carefully specified in a supplementary article.

Article 34. Cutting, Patching and Digging. (Cf. old Article 61.)

There is no substantial change from the provisions of the old Article except the insertion of the second sentence which calls specific attention to responsibility for the cost of such work caused by error or negligence.

Article 35. Delays. (Cf. old Article 28.)

Causes for extension of time are enumerated more completely than in the old Article, adding among others a reference to delay caused by the Architect or anyone employed by him. The time within which a claim can be made is extended from two to seven days; and a provision is added that, if no schedule is prepared as provided in Article 3, no claim can be made for failure of the Architect to supply information until two weeks after demand for it has been made. In the case of a continuing delay only one claim need be made. Old Article 28 referred to "general strikes;" the new article refers to "strikes." A local strike in a single branch of the work may give ample cause for extension of time.

Article 36. Owner's Right to do Work. (Cf. old Article 33.)

The intent of old Article 33 is maintained but somewhat more broadly and simply stated.

Article 37. Owner's Right to Terminate Contract. (Cf. old Article 34.)

The causes justifying action by the Owner are enumerated much more amply and the written notice is extended from three to seven days; otherwise there is no change in intent.

Article 38. Contractor's Right to Stop Work or Terminate Contract. (Cf. old Article 35.)

The limit of time for payments by the Owner, after issuance of certificate or award by arbitrators, is reduced from ten to seven days and the length of notice to be given by the Contractor before taking action is reduced from five to three days; otherwise the Article is substantially the same as the first paragraph of old Article 35, the last paragraph being included in new Article 27.

Article 39. Damages. (Cf. old Articles 27, 29 and 32.)

Old Article 27 relates to damages to the Owner through delay in completion of the work; old Article 29 relates to damages to the Contractor through delays caused by the Owner, or through any other act or omission of the Owner; old Article 32 relates to payment for protracted services of the Architect or clerk of the works due to delay caused by the Contractor. It seemed wiser to group all provisions relating to damage in a single Article and to eliminate any mention of particular causes, making the statement brief and broad. The new Article, therefore, merely refers to damage to either party, by

delay or otherwise, through any act or neglect of the other party, or of anyone employed by him. This is all inclusive, covers all possible causes of damage, and is simpler and safer than the separated and more specific clauses of the First Edition. For a similar reason the specific limit of forty-eight hours in which to make a claim, noted in old Article 29, is eliminated and a broad provision is substituted, that claims shall be made within a reasonable time of the first observance of the damage, but in any case prior to the final payment. Claims for damage are rare and generally the result of some unusual combination of circumstances and each case may well be judged on its own merits without the chance of being outlawed by some technicality.

The Article makes an exception of damage caused by one Contractor to another, as noted under Article 40, and also to claims under Article 16 which arise out of correction of work after final payment and therefore cannot be made before the final payment as required for other claims.

Article 40. Mutual Responsibility of Contractors. (Cf. old Article 30.)

Old Article 30 involved the Owner in the settlement of disputes between Contractors in regard to claims for damage. By the provisions of new Article 40 the Contractors agree to settle such disputes between themselves, and in case the Owner is sued direct by someone not operating under such provisions the defendant Contractor agrees to defend the suit and pay any judgment and all costs. This method is far better for the Owner and perfectly reasonable from the Contractor's point of view.

Article 41. Separate Contracts. (Cf. old Articles 37, 48, 44, 63 and 52.)

The subject matters of the various old Articles are covered by the new Article in the order named, in the case of old Article 44 the last two lines alone being involved. There is no material change in intent, but to guard against unjust decisions the exception in the last line of the second paragraph has been added, although it would naturally be implied in a reasonable interpretation of old Article 63.

Much has been gained by this grouping of matters bearing on the relation of the Contractor to other separate Contractors employed by the Owner on the work. This article has no reference to Sub-Contractors, whose relations with the Contractor are covered by Articles 43 and 44.

Article 42. Assignment. (Cf. old Article 36.)

The old Article provided merely that the Contractor could not assign the contract without the Owner's consent. Since the Owner's financial standing is of interest to the Contractor, it is equally reasonable that the Owner's assignment of the contract should be subject to the Contractor's consent. The new Article recognizes this and also adds that the Contractor shall not assign moneys due or to become due without the Owner's consent, since the moneys are properly applicable to the work of the contract and if applied to other liabilities of the Contractor liens may result to the damage of the Owner.

Article 43. Sub-Contracts. (Cf. old Articles 46 and 47.)

This Article contains considerable new matter. The first paragraph is substantially equivalent to old Article 46 and the fourth paragraph covers, under its general terms, the provisions of the middle portion of old Article 47. The last phrase of this paragraph is added to make clear again the separation of the contract liability involved from the liability imposed by law, which differentiation was discussed in connection with Article 19.

The second paragraph suggests a method of making proposals that has much to commend it. Dickering of sub-bids after the contract is let is of advantage to no one but the General Contractor and sometimes may prove a boomerang to him. It is to the advantage of the Owner that the sub-contracts be let to responsible concerns at reasonable prices. If the names of the proposed principal Sub-Contractors are given in the proposal, and form part of the accepted bid, their status is determined and no second bidding for cut-rate prices is possible for those portions of the work. If any of these named sub-bidders are incompetent or unfit, substitution of satisfactory ones can be arranged before the contract is signed. Furthermore the naming of the sub-bidders permits a more intelligent analysis of the low bid and indicates the general class of work to be expected.

It is undesirable and unnecessary to name the amounts of the sub-bids. The names alone furnish the necessary information, and the naming of the amounts might well lead to abuses.

Many Contractors, and particularly Sub-Contractors, favor this type of proposal, and the new article permits the Contractor to name his sub-bidders if he so desires even if not required to do so.

The third paragraph authorizes a Sub-Contractor who believes himself to be underpaid to apply to the Architect for information as to the amount of payments certified on account of his part of the contract. His exact interest may not be shown as other work, or part of the General Contractor's profit, may be included in the item, but so far as it may be of value to him he would appear to be entitled to the information; and through his right to apply for it the Architect gains a source of information which may well be of use in connection with the provisions of

Article 28 (b) and (c) relating to the withholding of payments on account of possible liens, or failure to make proper payments to Sub-Contractors.

In view of the various provisions of Articles 43 and 44, the last paragraph of Article 43 has been inserted to make it perfectly clear that no Contractual relation between the Owner and any Sub-Contractor has been created by any of the provisions. This is fairly evident from the phraseology of the Articles but it seemed wise to insert the direct statement.

Article 44. Relations of Contractor and Sub-Contractor. (Cf. old Article 47.)

The first sentence of old Article 47 provided that in sub-letting any part of the work the Contractor should bind his Sub-Contractors according to the terms of the contract documents as far as they were applicable.

This is the more or less customary phrase and represents what would generally be the case even if it were not specifically stated; as every General Contractor, in drawing up sub-contracts, endeavors so to word them that all the duties and responsibilities in connection with the work sub-let, placed upon him by the contract documents, shall be transferred to the Sub-Contractor. This involves a careful adjustment of his own standard form of sub-contract to the varying forms of general contract under which he is operating.

There are many relations existing between Contractor and Sub-Contractor that are necessarily different from or in addition to those existing between the Owner and the Contractor. The mere statement that the Sub-contractor is bound by the terms of the contract documents so far as applicable does not suffice for a sub-contract. The varying relations must be stated in detail if a complete sub-contract is to be obtained. This of course will usually be done in work of any magnitude.

A very large number of sub-contracts however are carried out on a mere letter of acceptance which refers to the bid and may or may not refer to the terms of the general contract under which the work is to be done. Such sub-contracts are indefinite and no basis exists for the adjustment of any disputes arising out of them.

Some have advocated the drafting of a standard form of sub-contract, embodying these special sub-contract conditions, to be used in connection with the standard general contract documents. This would simplify the execution of sub-contracts when formal sub-contracts are used. It would not however affect the large class of informal sub-contracts referred to above.

It was felt by some that if an Article could be added to the General Conditions, defining the standard relations that should exist between the Contractor and his Sub-Contractors, then all Sub-Contractors would be reached by its provisions. It was argued, against this method of procedure, that the General Conditions of the contract between Owner and General Contractor was not a proper place for the definition of relations between Contractor and Sub-Contractor; that it would be invalid, as it is impossible to bind a Sub-Contractor by an agreement to which he is not a party. While the first argument is theoretically true enough, it is always violated, to a certain extent, by general references to Sub-Contractor's duties which might well enough be amplified by more specific references. The second argument is indisputable, but in the case of any Sub-Contractor such an article *would become binding*, as between him and the General Contractor, as soon as he agreed, tacitly or specifically, to be bound by the terms of the general contract documents of which it formed a part; and such an agreement would doubtless exist in fact, if work were done without specific exception being taken, even if no written agreement were made.

Such an Article would simplify the execution of formal sub-contracts and automatically apply to all others. In other words all Sub-Contractors would be operating under uniform and fully developed sub-contract conditions, except such as specifically agree otherwise with the General Contractor. The advantage of this is manifest, especially where guaranty bonds are employed, the serious danger of divergence in the protection afforded by the various bonds being practically eliminated, there being but a single document to which to refer and there being also a standard form of bond which should be used for both general contract and all rub-contract bonds.

Although not originally proposed by them, Contractors have been quick to see the advantage of such a system and the detailed provisions of Article 44 as finally drafted have met with their approval.

To supplement this Article a standard form of sub-contract is issued. On account of the present novelty of the system the provisions of Article 44 are referred to and reprinted in full in Article 5 of the sub-contract. The balance of the form is extremely brief, merely affording opportunity for the enumeration of the parties, the work, the time of completion, and the contract price. Ample space is available at the end, under Section 6, for the addition of any special conditions that may be required, and which are anticipated in the first paragraph of Article 44.

A somewhat briefer standard form of letter of acceptance is also issued for use where the formality of a signed agreement is not demanded. This is just as binding as the longer form and may facilitate matters somewhat when no special conditions are involved.

Article 44 has been embodied in the New Standard Documents only after most searching criticism, and careful consideration of its effect on the balance of the documents. Counsel agree that it in no way affects the validity of the contract between the Owner and the General Contractor, and it appears to simplify greatly the standardization of sub-contracts. General contracts are already under way in accordance with its terms, using the standard sub-contract form for all sub-contracts. It is of course highly probable that improvements can be made in it as a result of practical experience, and users of the documents should coöperate by forwarding to the standing committee for consideration any suggestions that may result from their practice.

Article 45. Arbitration. (Cf. old Article 38.)

The first paragraph repeats the general statement of Article 10, that except as otherwise specially provided all questions in dispute shall be submitted to arbitration at the choice of either party. According to the provisions of paragraph (o), of the preceding Article 44, the procedure laid down is made applicable to disputes between the Contractor and his Sub-Contractors as well as to disputes between the Contractor and the Owner.

The second paragraph makes reference to the laws of the state in which the work lies, which shall govern the arbitration procedure. Here again comparison should be made of the procedure laid down in this article with local laws and, where necessary, amendments drafted.

The following paragraphs define the procedure somewhat more fully than in the old article. The next to the last paragraph permits, as did the old article, the assessment of damages against the loser if the circumstances warrant such action, and in this provision lies a strong deterrent of ill-considered appeals to arbitration.

The final paragraph prevents an award being declared void for some purely technical cause, provided the award is in writing.

(8) *Conclusion.*

The New Standard Documents are the result of long study and most valuable coöperation of Architects, Contractors and their counsel. They represent unquestionably a step well in advance of previous standard forms. Their value, in standardizing good building practice, will be in proportion to their use and every Architect who adopts them as his standard forms will help in developing their full value. He will help still further to perfect them, if he will inform the standing committee of any defects he discovers as a result of his practice.

Town Planning and Housing

GEORGE B. FORD, Associate Editor

The Battle With Chaos*

By F. L. ACKERMAN

The terms included in the topic, "The Architectural Side of City Planning," have for each of us a certain definite meaning which is shaded by our experiences. I make no attempt to define the terms "Architecture" and "City Planning," nor do I ask an acceptance of the interpretation which I shall give to them. I simply wish to surround each with a group of associated ideas.

Terms Architecture and City Planning Used Comprehensively

The term "Architecture" brings to the minds of most of us visions of well-ordered cities containing elements of beauty, things monumental in character, things decorative. We differentiate between engineering and architectural conception in a very curious way. I do not wish to quibble over these terms. A mere definition is of no consequence. I shall use the term "Architecture" in an all-inclusive way embracing both the utilitarian and the esthetic in our physical environment.

Let me also surround the term "City Planning" with a number of associated ideas. As I conceive the term, city planning is not a series of legislative acts, as so many assume, imposing upon a people a set of conditions to which their lives must be warped into conformity; it is not merely the carrying out of certain theories developed by city planners, engineers, and by students of social and economic conditions or of the ideals of the architect. It is not merely the providing for adequate transportation, sanitation, better housing, or more beautiful surroundings. It is more than all of these. City planning is the act of providing a more adequate physical expression for the composite ideals of groups of people thrown together by social and economic forces in our communities.

In Prosaic as Well as Monumental Forms True Valuation is to be Found

Sculpture, painting, the "works of art" or even the "monuments of architecture," or our "great feats of engineering," do not completely and adequately reveal the story of civilization. It is also in the more prosaic forms of expression that we find the story told with equal accuracy and by the use of terms of more intimate appeal. Our rural homes, our villages, our cities,—all that they contain, the good, the bad, the beautiful and the ugly tell the true story,—reveal the secrets. Into the great physical composite has been wrought, for the greater part by the unguided hand, all of our hopes, our aspirations and our fears. It is this physical composite which constitutes the real, vital art of a people. It is not the degree of attainment in a single phase alone which should serve as the basis of a true valuation; but rather it is the degree of attainment and the co-relation of all. Art is not so much an expression of a people's concept of beauty as it is a physical expression of their composite ideas or, in other words, their culture.

Beauty Not a Quality of Universal Appeal

Beauty is not a quality of universal appeal, for the basis of valuation depends upon a group of associate ideas rather than upon an intrinsic quality in beauty. We speak lightly of a "universal art;" that does not now nor will it ever exist until there shall have been a complete standardization of ideas—or cultures. There are in art expressions of a certain few elements or phases of more or less universal appeal; to that extent is art universal.

Physical Surroundings Must Express Definite Ideal of a People

In our effort toward self-expression, we have adapted the institutions of the past, and in the same way we have endeavored to find an adequate physical expression through the use of old forms, at best possessing but a very limited number of elements of universal appeal. We speak of our cities as being "typically American"—suggesting that they are adequately expressive of our day and of our people. Superficially this may be true; but, if one looks more deeply into their structure, he finds that they fall far short of being adequately expressive.

It it be true that we have a definite ideal which we have failed to express in our physical surroundings, and that progress or evolution can result only from a series of tangible expressions of our aspirations or our ideals, then the question arises: What

*Part of an address delivered at the National Conference on City Planning.

are the elements lacking and how can they be supplied?

Education the Foundation Upon Which We Must Build

I assume that education is the foundation upon which we must build, and that the educational methods of the present day do not provide a proper foundation. Not until we shall have abandoned our system of "puzzle education" in our schools, and introduced a system based upon some such educational philosophy, for example, as advocated by Dr. John Dewey and as carried out by Mr. Wirt in the schools of Gary, Indiana, can we hope to provide conditions which will have a very direct relation to ourselves as individuals. The motive for study must be a knowledge of its value; the knowledge of a need must precede the process of supplying the need. Our whole educational policy has been a sort of memorizing process; few elements in it have been related to the world of today. Our institutions and our physical surroundings are accepted as being the result of natural laws, and in themselves quite unrelated to ourselves. Our schools consider things in the abstract only; the application is left to chance. This curious process,—for it is a process and little else,—has led us to accept as a matter of course the most stupid physical arrangements in our cities, our villages, and our rural homes.

Must Teach Architecture and Art as Elements of Town Planning

In the book, "A Civic Biology," by Mr. George W. Hunter, there is presented a method of teaching which is most suggestive. The chapter on "Man's Improvement of His Environment" indicates in a very specific way the possibilities of presenting the subject of physical surroundings, architecture and art to pupils whose previous experience had not provided them with even the most primary concepts concerning such things. This chapter in itself has little directly to do with architecture; it considers methods of improving sanitary conditions and subjects of a similar nature. It would be a simple matter indeed to extend the scope and include a group of subjects which would awaken in the minds of the pupils a keen interest in other phases of their physical environment of equal interest and importance. The beginning of the chapter states that its purpose is "to show how we as individuals may better our home environments, and secondly how we may aid civic authorities in bettering the conditions in the city in which we live." The few phases of this subject touched upon in this chapter cannot fail to awaken a keen interest, but it leaves quite untouched the larger group of ideas upon which city planning rests. I hope that someone will complete that chapter, adding the ideas which will make it clear to the child that there are things for him to consider in our towns and cities which are vital to his comfort and well-being, and which incidentally have to do with architecture and art.

All this may seem like a Utopian dream. Why should it? In the public schools of New Jersey under the direction of Mr. Dana*, city planning is being taught, together with other subjects of a similar nature. Leaflet No. 23 issued by the Superintendent of the Public Schools of Newark illustrates the scope and nature of the work. The subject is made interesting and personal through the use of a local application of general principles. The child is induced to see that his physical surroundings are not, in many cases, adequate, and he is shown how few changes would be required to make them right. The esthetic phase of the subject appears as a resultant, and a more accurate valuation is given to the many elements which constitute our physical environment.

It is quite possible, through methods of suggestion, to create in the minds of the children in urban and rural schools a definite ideal of adequate physical environment. If we were to select, from the best examples the world has produced, photographs and slides illustrative of adequate physical conditions of a simple, intimate nature, and see to it that the children were made acquainted with such ideas, there would be developed not only a higher ideal, but there would also be provided a very definite conception of the thing which would express that ideal. If in these illustrative examples there were elements of beauty, then beauty would become intimately related to life.

University Instruction to Further a Higher Form of Community Expression

In our universities of higher education, with students thus provided with an educational background, relating form to living conditions, it would be possible to extend the teaching. Instead of filling the mind with a mass of facts and formulas quite abstract in their nature, again we might by inductive methods and suggestion show how it is that the physical expression of community life results from a multitude of social and community functions; that political methods and processes are the channels through which the community expresses itself in its institutions and in its physical aspects.

Why not teach, by illustrated lectures in our universities, the subject of city planning? Why not relate the student's abstract notions of life and the vague ideas he holds to things of actuality? Why not arouse his interest in the processes of govern-

[*See the article by Mr. Dana on page 447 of this issue. —EDITOR.]

ment by relating them to the things of a physical nature which he can see and feel? Again would the beauty of the thing assume a new meaning, and art and architecture would become vital things related to life.

Our architectural schools have developed a splendid system of logical thought in regard to the subject of plan. All that is lacking is that it should be made more intimate to our present-day conditions and we should force home to the architectural student the fact that our communities are primarily social rather than physical structures.

The Architect's Responsibility in City Planning

I will say but a word regarding the function of the architect in the work of developing our cities. The work of the architect of today is complex indeed; the greater part of his effort centers about single problems, but the principles which he applies to their solution are subject to the broadest application. He is a coördinator of many things, and his constant study of bringing things into harmony and proper arrangement enables him to render a service in the field of city planning which no other individual is now trained to render. To him in many cases facts and figures are not necessary. A sort of intuitive judgment in the application of the principles of planning enables him to vision rather than to calculate the forms which will adequately express.

If the architect is to render the greatest possible service in the work of city planning, two things are of fundamental importance. He must assume the great responsibility imposed upon him by his training, his knowledge and his citizenship. It is also of equal importance that his ability and his fitness to perform certain functions be recognized and given a proper valuation. His point of view *must* be recognized in the development of the program, and something of his vision *must* be included in the solution of the problems. As I view the situation from the standpoint of the architect, the object is to provide an adequate and a proper envelope for a set of reasonable conditions, rather than to require of the architect, as we now do, that he attempt to render pleasing a set of conditions, the very nature of which prohibits absolutely such a possibility.

The Esthetic Possessed of a Definite Economic Value

A few years ago we recognized the serious state of affairs existing within our cities; but, when we first endeavored to call them to the attention of the people, we turned for our inspiration to the cities of Europe. We selected elements related to the esthetic side of city planning in the hope that these would awaken a general interest in the more serious side of the subject. Our first appeal was expressed in the advocacy of the "City Beautiful." In this we failed. The people had not developed to a point where such considerations seemed pertinent, nor did this phase appear to them to have anything whatever to do with their more fundamental ideals concerning living conditions. That the esthetic had a definite economic value in a community was not easily demonstrated, for the simple reason that the mind was working along other directions. A little later, however, when we had gone into the subject more deeply, and when we approached the problem from the standpoint of social and economic values, considering such subjects as housing, sanitation, congestion, there was a ready response. This response resulted not from the fact that the new proposition was more easily demonstrated, but rather from the fact that in our argument the people recognized that there was an intimate relation between our effort and their ideals of individual rights, liberty, and adequate physical environment.

Ultimately Utility and Beauty to be Related as Cause and Effect

I recognize that I have offered little of a definite nature concerning the architectural side of city planning which may be applied with immediate results. I have not dwelt upon the specific contributions of the architect which affect, in a material way, the physical aspect of our cities. I do not ignore that phase of city planning because I deem it of secondary importance; I simply pass it by because I recognize that the time is not yet ripe for such a discussion. The ugliness, the inadequacy of our surroundings are not due to viciousness of character or commercialism, as so many would have it, but to plain ignorance—a chaotic condition of thought which has set up a false standard of values. Our battle,—and it is a battle which we must wage,—is not so much against a definite or an established order of things as it is against chaos. Chaos is our problem. To go on in an endeavor to more adequately express chaos is about as futile in developing a better civic architecture as is the attempt to sound a bell in a vacuum.

It is for this reason that I say that it is alone through the proper methods of education that we can hope in the future to realize our vision. We may struggle with the problems of the day, and through our effort we may slightly deflect the current of our chaotic progress. But we cannot hope that the succeeding generations which follow will find conditions much less chaotic, nor can we hope that they will find the task less difficult, unless we follow the cur-

rent of influence to the source, and there establish an educational system which will develop such an interest in our physical environment that things will have an intimate relation to our lives.

When we shall have accomplished this, then it will be possible for those who think in terms wherein utility and beauty are related as cause and effect, to use a language in which the symbols of expression will not only have a universal meaning but will also be related to the impulses of our lives.

City-Planning Instruction in the Public Schools of Newark, New Jersey

By JOHN COTTON DANA*

The Newark City-Plan Commission was appointed by the Mayor, in accordance with a state law, five years ago. It has a small annual appropriation of $10,000. It can give advice, but can not compel the city to follow it.

The commission is working toward the publication of a comprehensive City Plan, one that shall cover not only Newark itself, but also the many municipalities which lie near and join with it to make one huge and rather formless city. From the very first the commission rejected the idea of laying out and presenting to the city, in elaborate form, an expensive "Civic Center." It has made many studies of special subjects, such as recreation, rapid transit, and housing, and has issued pamphlet reports thereon. In these it has made many recommendations, all of which, with many others, will be included in the comprehensive scheme to be issued later.

The commission early discovered that few citizens understand what city planning means. Also it noted the obvious fact that, however excellent might be its suggestions, citizens would give them slight heed unless they clearly understood them; and the further obvious fact that busy men can with great difficulty be led to see that expensive changes in a city's anatomy, the streets, are very important, may be profitable even though costly, and are more cheaply made today, however expensive, than tomorrow or next year.

Publicity, then, naturally became the keynote of all the commission's work. Not publicity for the commission itself, and not publicity for any specific reform or change it may recommend; but publicity that shall lead citizens to look on the idea of a more wholesome, saner and more effective city as an idea to be kept always in mind, to be always desired, to be always striven for, and at times to be made real even at great cost.

In its publicity work the commission has aimed to acquaint the citizens with facts about their city; to show them that it is confronted with many problems of transportation, housing, street arrangement and recreation, and that city planning, wisely and logically administered, can alone solve these problems and satisfactorily provide for the proper physical expansion of the city. Once the people realize that city planning is not an expensive and needless embellishment idea, but rather a most sensible and logical procedure, wherein beauty may proceed out of utility at little or no added expense—then will city planning come into its own.

In its campaign of education a series of postcards was mailed to a list of a thousand business men; many newspaper articles were prepared and printed with the hearty coöperation of the local press, and addresses were made before numerous organizations and in the public-school lecture-courses.

The commissioners found that city planning is not the work of a day or of years, but of decades and generations; and that the children now in the schools, when they become active, tax-paying, voting citizens, five, ten and fifteen years from now, will still find city planning going on, and great problems of city improvement still waiting solution.

Newark has probably done more than any other American city to educate its school children in matters pertaining to local history and to local civic and physical conditions. "If the young people," said Newark, "are given an intelligent interest in the problems of their city they will, when they become voters and taxpayers, take up these subjects and endeavor to solve them as they should be solved."

The up-to-date teacher says knowledge should grow "from the Known to the Related Unknown," and so, for instance, teaches Home Geography before presenting World Geography. The schools of Newark subscribe to this belief. The City-Plan Commission, as already noted, saw from the first that its plan for a better Newark could be realized only when the citizen public had learned to know its own city, to care for it, to compare it with the best of other cities, and wish to make it like them.

The Newark Library, as an institution devoted to the improvement of the people of Newark by the distribution of printed things, has brought about a

*Librarian, Newark Public Library, Newark, N. J., and Member of City-Plan Commission.

union of these two faiths from which has been born an educational practice which is full of promise.

There is in the course of study for the Newark schools a "Newark Course." It demands that in each grade shall be studied, at suitable seasons, the many things that together make up a city's life. This is published complete in one volume under the title, "Newark and the City Arts." The work for each of the several grades is also issued separately. The Board of Education has also published about forty leaflets, from four to eight pages each, for the use of pupils and teachers. These are largely revisions of multigraphed sheets, formerly furnished the schools by the library. The forty leaflets cover such subjects as: Hospitals, Public Buildings, Streets, Industries, Water Supply, Police, Shade Trees, Fire Department. From time to time new leaflets are issued. One of these, first published in the "Newarker," the house organ of the library, is on City Planning. Here are a few sentences taken from it:

"The reason why the maps of most cities are so much like puzzles, is that the people who lived in them at first did not realize how large they would grow to be, or in what ways they would expand." . . . "Even in Newark there are streets, in the business section, like Bank and Beaver, so narrow that on them the police permit vehicles to travel one way only!" . . . "Within the last generation, City Planning has been adopted in many American cities. It was begun in Europe before that. . . . City Planning means such forethought, on the part of the people of the city as a whole, as will prevent haphazard city building by individuals and will, therefore, cause the city to become as convenient, healthful, and beautiful as men know how to make it." . . . "In Newark the Federal Government may build a Post Office, the state government a Normal School, the county government a Court-House, and the city government a City Hall, and no one of these governments may know where or when the other will build, or what sort of architecture will be chosen."

The library supplements this course with illustrations and maps from its collection of 400,000 items, lending these freely to the teachers, and publishes occasionally such lists as the part of one which follows and shows the many pictures in the Picture Collection, third floor of the Public Library.

A List of Pictures Illustrating the Subject of City Planning

1. Arches	Washington Arch, New York City. L'Arc de Triomphe, Paris.
2. Bridges	Park—London Bridge. River—Fenway, Boston. Street—Pont St. Michel, Paris.
3. Historic Landmarks	Old Curiosity Shop, London. Old South Meeting House, Boston. Van Cortlandt House, New York City.
4. Water Fronts	Thames, London. Seine, Paris. Chicago River.

Each year, on May 17, called "Newark Day," or "Founders' Day," an exhibit of pictures and maps, showing features of Newark's history, advantages, and growth, is put up at the library, and visited by thousands of children, often with their teachers.

The Board of Trade has shown interest in this "Newark Study" movement by a contribution of money for printing. The Board of Education has called into conference, in the library, teachers, principals, and citizens for discussion from the two points of view of ways to make the city and its hopes known to its young people. The board has also had made a hundred large maps of the city, 9 x 9 ft., for school use, and many small outline maps in pads for classroom use in what teachers call "development" map work, in which the pupils add certain features to the outlines.

A full index of sources of information on Newark, compiled by the library, is a part of the "Newark Study."

This course has now become widely known. Requests for copies of it have been received from all parts of the United States and even from Russia and India.

Recently there was held at the City Hall a Newark Municipal Exhibition. Maps, charts, diagrams and pictures were shown, telling of the work of the several departments of the city government. Supplementing these was a special exhibition of city-planning material, drawn from world-wide sources, and public meetings were held in the council chamber twice daily, at which were given talks on municipal problems. The children of the schools visited this exhibit in great numbers, most of them taking notes, and many of them making sketches and writing compositions on what they had seen and heard.

Thus the schools have used the work of the City-Plan Commission for the training of pupils, and the commission has used the pupils, both to spread the information on which are based its recommendations, and as soil in which to plant knowledge and views which shall bring into being good plans for the city's future.

Institute Business

Subjects for the Careful Consideration of Every Member of the Institute Prior to the Next Convention on December 1, 2, and 3

Reports of Committees

Beginning on October 15, there will be mailed from the Octagon to Secretaries of all Chapters printed copies of the reports of the various committees of the Institute. This will afford an opportunity for every Chapter to consider the contents of these reports at a regular meeting, or, in some few instances, at special meetings which may be called. The Secretary of the Institute has issued a circular letter to all Secretaries of Chapters in which he emphasizes the importance of bringing these reports before the various Chapters. It is only by so doing that the delegates can be sure of leaving for the Convention with a clear idea of the opinion of their fellow members upon the issues which will be raised on the floor of the Convention.

The Reorganization of the Institute

Every member of the Institute has now received a copy of the proposed new Constitution and By-Laws. This important subject will be prominently to the fore in the Convention and the freest expression of opinion is desired. The Committee on Chapters has undertaken and completed a most arduous task and now believes that it has met all the arguments and suggestions which were offered when this question was before the Convention of 1914. But it is of the highest importance that delegates to the Convention are made thoroughly familiar with the consensus of opinion, in their respective Chapters, of the actual amended Constitution and By-Laws which are now to be presented to the next Convention, pursuant to the mandate of the Convention of 1914.

New Members

The following new members have been admitted to the Institute: J. R. Allen, E. R. Bossange, L. S. Butler, Henry O. Chapman, J. W. Cross, George B. de Gersdorff, Aymar Embury, II, Lindley M. Franklin, Jr., Charles Merrick Gay, Frank Goodwillie, E. T. Howes, Arno Kolbe, G. C. Mackenzie, Andrew C. McKenzie, Thomas Nash, Pennington Satterthwaite, Augustus D. Shepard, B. B. Smith, Arthur T. Sutcliffe, Harry W. Tuttle, Teunis J. Van der Bent, Henry W. Wilkinson, New York Chapter; W. A. Etherton, Washington Chapter.

Nominations for Officers

The Secretary of the Institute has received the following nominations for officers of the Institute to be elected at the coming Convention in Washington on December 1, 2 and 3 next:

For President—
Thos. R. Kimball, Omaha.
For 1st Vice-President—
C. Grant La Farge, New York City.
For 2nd Vice-President—
M. B. Medary, Jr., Philadelphia.
For Secretary—
Burt L. Fenner, New York City
For Treasurer—
J. Lawrence Mauran, St. Louis.
For Directors (3)—
R. Clipston Sturgis, Boston.
D. Everett Waid, New York City.
Ben. J. Lubschez, Kansas City.

These nominations were signed by members of Chapters as follows: Kansas City, 5; New York, 9; Philadelphia, 1; Virginia, 1.

For President—
Thomas R. Kimball, Omaha.
For 1st Vice-President—
C. Grant LaFarge, New York City.
For 2nd Vice-President—
Milton B. Medary, Jr., Philadelphia.
For Secretary—
Burt L. Fenner, New York City.
For Treasurer—
John Lawrence Mauran, St. Louis.
For Directors—
Edwin H. Brown, Minneapolis.
Ben J. Lubschez, Kansas City.
R. Clipston Sturgis, Boston.

These nominations were signed by members of Chapters as follows: Oregon, 7; Washington State, 14.

For President—
John Lawrence Mauran.

This nomination was signed by members of Chapters as follows: Chicago, 27; Cleveland, 11; Philadelphia, 5; St. Louis, 11.

For Director—
Horace Wells Sellers, Philadelphia.

This nomination was signed by members of Chapters as follows: Louisiana, 7; Michigan, 1; Philadelphia, 11; So. Penn., 9.

News Notes

The Work of the American Society for Testing Materials, of Which Society the Institute Is a Member. The Prospect of a Standard Specification for Portland Cement.

Professor Thomas Nolan, delegated to represent the membership of the Institute, in the recent annual meeting of the American Society for Testing Materials, has submitted a report covering the work undertaken at the meeting, as well as review of the history of the Society and its accomplishments. The Institute was appointed a member of a sub-committee to deal with certain aspects of the proposal to devise methods for securing uniformity in specifications for cement, and Professor Nolan's report summarizes the steps which have already been taken toward this end. Coöperating with the Society were the American Society of Civil Engineers and the Government Departmental Committee on Specifications for Cement. At a joint conference of delegates of the three societies, an agreement was reached on all the requirements of the specifications and methods of tests, except the determination of the time of setting. Further consideration of the subject at the preliminary meeting of the committee led to the suggestion for sub-committees to consider the various phases of the matter, the Institute being appointed a member of the sub-committee to consider the significance of tests, methods of marking packages, weights, and allied questions.

Consideration of this question dates as far back as 1885, but the Committee on Standard Specifications for Cement did not come into being until 1902.

In 1903 it adopted, as a basis for its work, the report of the Committee on Uniform Tests of Cement. In order to obtain data to aid in drafting a standard specification, the committee arranged a series of tests with some thirty prominent laboratories. The results of these tests were collated, and a tentative specification was prepared and adopted by the committee in 1904; the specifications were adopted by the Society in the same year. Upon the recommendation of its Committee on Masonry, the American Railway Engineering and Maintenance of Way Association adopted the specifications of the American Society for Testing Materials on March 21, 1905. This specification was revised at the annual meetings of the American Society for Testing Materials in 1908 and 1909. The report of the Special Committee on Uniform Tests of Cement was accepted by the American Society of Civil Engineers on January 17, 1912.

The recommendations of the departmental conference, reported February 13, 1912, were made the specifications of the United States government, by executive order dated April 30, 1912. The Joint Conference on Uniform Methods of Tests and Standard Specifications for Cement came into existence as explained above.

The adopted Standard Specification for Cement was the standard in this country in all branches of engineering, except some departments of the United States government. The present efforts to reconcile differences between the government specifications and this standard will undoubtedly lead in the near future to an agreement upon a specification for Portland cement which will become the standard for the entire United States.

Society of Beaux-Arts Architects

JOINT COMMITTEE ON SCULPTURE, S.B.-A.A., AND NATIONAL SCULPTURE SOCIETY
LLOYD WARREN, *Chairman*, 126 East 75th St., New York City

Official Notification of Awards—Judgment of August 30, 1915

FIRST CLASS: Composition, "A Memorial Day Monument."

This was the judgment of the preliminary competition for a monument in temporary material to be erected at Grant's Tomb as part of the celebrations of Memorial Day, 1916.

Models chosen as eligible for the final competition were by:

A. H. Atkins, N.S.S.
S. Baizerman, S.B.-A.A. Atelier.
P. Herzel, S.B.-A.A. Atelier.
P. Manfredi, S.B.-A.A. Atelier.
G. Cecere, S.B.-A.A. Atelier.
A. Goodelman, S.B.-A.A. and Cooper Union Ateliers.

THE AMERICAN INSTITUTE OF ARCHITECTS

THE OCTAGON, WASHINGTON, D. C.

OFFICERS FOR 1915

President	R. Clipston Sturgis, Boston, Mass.
First Vice-President	Thomas R. Kimball, Omaha, Neb.
Second Vice-President	D. Knickerbacker Boyd, Philadelphia, Pa.
Secretary	Burt L. Fenner, New York, N. Y.
Treasurer	J. L. Mauran, St. Louis, Mo.

BOARD OF DIRECTORS

For One Year

C. Grant LaFarge, 101 Park Ave., New York, N. Y.
H. Van Buren Magonigle, 101 Park Ave., New York, N. Y.
John Hall Rankin, 1012 Walnut St., Philadelphia, Pa.

For Two Years

Walter Cook, 3 West 29th St., New York City.
Octavius Morgan, 1136 I. N. Van Nuys Bldg., Los Angeles, Cal.
W. R. B. Willcox, 400 Boston Block, Seattle, Wash.

For Three Years

Charles A. Coolidge, 122 Ames Bldg., Boston, Mass.
Charles A. Favrot, 505 Perrin Bldg., New Orleans, La.
Elmer C. Jensen, 1401 New York Life Bldg., Chicago, Ill.

LIST OF CHAPTERS, 1915

The year indicates the date of Organization.
The President and Secretary are given in the order named.

Baltimore Chapter, 1870.—Clyde N. Friz, Secretary, 1523 Munsey Bldg.

Boston Chapter, 1870.—Ralph Adams Cram, 15 Beacon St.; Charles N. Cogswell, Old South Bldg., Boston.

Brooklyn Chapter, 1894.—Wm. P. Bannister, 69 Wall St.; J. Theodore Hanemann, 103 Park Ave., N. Y. City.

Buffalo Chapter, 1890.—George Cary, 184 Delaware Ave.; Robert North, 1314 Prudential Bldg., Buffalo.

Central N. Y. Chapter, 1887.—Edwin S. Gordon, 300 Sibley Block, Rochester, N. Y.; Howard W. Cutler, Cutler Bldg., Rochester, N. Y.

Cincinnati Chapter, 1870.—George M. Anderson, Ingalls Bldg.; Joseph G. Steinkamp, Mercantile Library Bldg., Cincinnati, O.

Cleveland Chapter, 1890.—Gustave B. Bohm, 1627 Williamson Bldg.; Abram Garfield, Acting Secretary, Garfield Bldg.

Colorado Chapter, 1892.—A. A. Gove, 519 Boston Bldg.; Harry J. Manning, 214 Majestic Bldg., Denver.

Columbus Chapter, 1913.—J. E. McCarty, 1006 Hartman Bldg.; C. W. Bellows, 45 Ruggery Bldg., Columbus, O.

Connecticut Chapter, 1902.—F. Irving Davis, 49 Pearl St., Hartford; James Sweeney, 140 State St., New London, Conn.

Dayton Chapter, 1889.—Harry J. Williams, 591 Arcade Bldg.; Harry I. Schenck, 591 Arcade Bldg., Dayton, O.

Georgia Chapter, 1906.—Hal F. Hentz, Candler Bldg.; Wm. J. Sayward, 632 Candler Bldg., Atlanta.

Illinois Chapter, 1869.—Charles H. Prindeville, 64 E. Van Buren St.; Henry Webster Tomlinson, 64 E. Van Buren St., Chicago.

Indiana Chapter, 1887.—Herbert L. Bass, Hume-Mansur Bldg.; Herbert W. Foltz, Indiana Pythian Bldg., Indianapolis.

Iowa Chapter, 1903.—William L. Steele, 400 United Bank Bldg., Sioux City, Iowa; Eugene H. Taylor, 222 S. Third St., Cedar Rapids, Iowa.

Kansas City Chapter, 1890.—Ben J. Lubschez, 200 Reliance Bldg.; George M. Siemens, 214 Scarritt Bldg., Kansas City, Mo.

Louisiana Chapter, 1910.—S. S. Labouisse, City Bank and Trust Bldg.; Nathan Kohlman, Godchaux Bldg., New Orleans.

Louisville Chapter, 1908.—Brinton B. Davis, 1909 Inter-Southern Bldg.; Val. P. Collins, Paul Jones Bldg., Louisville, Ky.

Michigan Chapter, 1887.—Leon Coquard, 169 First St.; Marcus R. Burrowes, 701 Trussed Concrete Bldg., Detroit.

Minnesota Chapter, 1892.—Edwin H. Hewitt, 716 Fourth Ave.; Edwin H. Brown, 716 Fourth Ave., Minneapolis.

New Jersey Chapter, 1900.—George S. Drew, State House, Trenton; Hugh Roberts, 1 Exchange Place, Jersey City.

New York Chapter, 1867.—Richard H. Hunt, 28 E. 21st St.; Louis Ayres, 50 E. 41st St., N. Y. City.

North Carolina Chapter, 1913.—Hill C. Linthicum, 703 Jackson St., Durham, N. C.; Willard C. Northup, Winston-Salem, N. C.

Oregon Chapter, 1911.—A. E. Doyle, Worcester Bldg.; W. G. Holford, Chamber of Commerce Bldg., Portland.

Philadelphia Chapter, 1869.—Milton B. Medary, Jr., 139 S. 15th St.; Horace Wells Sellers, 1307 Stephen Girard Bldg., Philadelphia.

Pittsburgh Chapter, 1891.—F. A. Russell, 336 Fourth Ave.; Charles T. Ingham, 323 Fourth Ave., Pittsburgh.

Rhode Island Chapter, 1870.—Eleazer B. Homer, 87 Weybosset St.; John Hutchins Cady, 10 Weybosset St., Providence.

San Francisco Chapter, 1881.—W. B. Faville, Balboa Bldg.; Sylvain Schnaittacher, 233 Post Street, San Francisco.

South Carolina Chapter, 1913.—Charles C. Wilson, 1302 Main St., Columbia, S. C.; James D. Benson, 39 Broad St., Charleston, S. C.

Southern California Chapter, 1894.—S. Tilden Norton, Title Insurance Bldg.; A. R. Walker, Acting Secretary, Hibernian Bldg., Los Angeles.

Southern Pennsylvania Chapter, 1909.—C. Emlen Urban, Lancaster; Reinhardt Dempwolf, York, Pa.

St. Louis Chapter, 1890.—E. J. Russell, Chemical Bldg.; W. L. Rathmann, Chemical Bldg. St. Louis.

Texas Chapter, 1913.—Olle J. Lorehn, 302 Le Power Bldg., Houston; F. E. Giesecke, University of Texas, School of Architecture, Austin, Texas.

Toledo Chapter, 1914.—E. O. Fallis, 208 The Nasby; George S. Mills, Ohio Bldg., Toledo, Ohio.

Virginia Chapter, 1914.—Clarence A. Neff, Seaboard Bank Bldg., Norfolk, Va.; William C. Noland, 914 Travelers Bldg., Richmond, Va.

Washington Chapter, 1887.—Glenn Brown, 806 17th St., N. W.; Percy C. Adams, 719 Union Trust Bldg., Washington, D. C.

Washington State Chapter, 1894.—James H. Schack, Lippy Bldg.; Arthur L. Loveless, 513 Colman Bldg., Seattle.

Wisconsin Chapter, 1911.—E. O. Kuenzli, 82 Wisconsin St.; Henry J. Rotier, 813 Goldsmith Bldg., Milwaukee.

Worcester Chapter, 1892.—George H. Clemence, 405 Main St.; Lucius W. Briggs, 390 Main St., Worcester, Mass.

THE ANGEL GABRIEL

The figure is of wood, painted and gilt. Much of the polychromy remains,—the gilt alb, patterned purple amice, rose-colored cope, and feathers carefully picked out in green, rose, purple, and gold. The peculiar type suggests an origin in eastern France, probably within the first half of the Fifteenth Century.

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